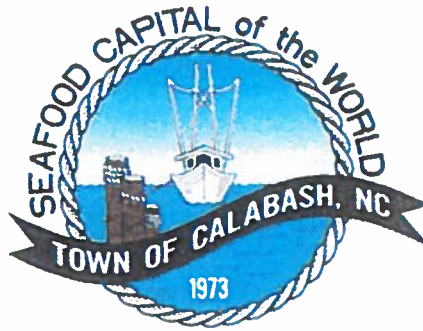


# Town of Calabash



## Coastal Area Management Act (CAMA) Core Land Use Plan Update

**Adopted by the Town of Calabash on August 14, 2007**

***Coastal Resources Commission LUP Certification on September 29, 2007***

**Land Use Plan**  
**2004-2007**

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**GUIDE for PLANNING & SPECIAL ISSUES COMMITTEE REVIEW  
OF CORE LAND USE PLAN**

<b>TOWN OF CALABASH</b>	<b>Page (s)</b>
<b>Organization of the Plan.</b> If document does not follow the outline of Rules, a matrix shall be included showing the exact location of required elements.	1
<b>Community Concerns and Aspirations:</b> Key issues & Vision statement:	Part 1 Section 1 8-11
<b>Analysis of Existing and Emerging Conditions within the planning jurisdiction.</b>	Section 2
Population, Housing, and Economy. Including 5 - 10 – 20 year) projections.	12-30
Natural systems analysis.	Section 3
○ Mapping and analysis of natural features.	31-48 & Map Appendix
○ Composite map of environmental conditions: Breaks community into 3 classes of developability based on environmental conditions.	Section 4 49-50
○ Description of Environmental conditions:	Section 5 51-56
<b>Analysis of Land Use and Development: Existing Land Use Map</b>	Section 6 & Map Appendix
○ Analysis of conflicts, trends, and areas expected to grow within next 5 years and areas of any potential conflicts w/composite map.	57-61
○ Projections of future land needs. Short term (5-10-20 year) projections population & land needs. May be increased up to 50%. Low or no growth projections of land needs may consider economic strategies.	61
<b>Analysis of Community Facilities.</b> Existing/planned capacity, location, & adequacy of key facilities that serve community's existing/planned population and economic base including:	Section 7 62-71
○ Public and private water supply and wastewater systems.	62-65
○ Transportation systems.	65-69
○ Stormwater systems & other systems & services	69-71
<b>Land Suitability Analysis &amp; Map</b>	Section 8 72-73 & Map Appendix
<b>Review of Current CAMA Land Use Plan.</b>	Section 9 74
<b>Plan for the Future:</b> Land use and development goals & Policies	Part 2 Section 1
<b>Land Use Plan Management Topics</b>	75
<b>Public Access:</b> <u>Goal:</u> Maximize public access/ <u>Objective:</u> Access opportunities for the public	Section 2 76-79
○ <u>Requirements:</u> Establish local criteria for frequency and type of access facilities & criteria for areas targeted for beach nourishment.	76-79
<b>Land Use Compatibility:</b> <u>Goal:</u> Ensure development/use of resources or preservation minimizes direct & secondary environmental impacts, avoids risks to public health, safety & welfare & is consistent w/capability of the land based on considerations of interactions of natural & manmade features.	80-83
○ <u>Objective:</u> Policies balancing protection of natural resources/fragile areas w/economic development; provides clear direction for local decision-making, consistency findings for zoning, divisions of land, & projects.	
○ <u>Requirements:</u> Establish building intensity & density criteria for each land use designation on the FLUP Map; Establish local mitigation criteria and concepts.	80-83
<b>Infrastructure Carrying Capacity:</b> <u>Goal:</u> Ensure public infrastructure systems are appropriately sized; located & managed so quality & productivity of AECs/fragile areas are protected or restored.	84-87



○ <b>Objective:</b> Establish level of service policies/criteria for infrastructure consistent w/Projections of Future Land Needs.	84-87
○ <b>Requirements:</b> Identify/establish service area boundaries; Correlate FLUPM categories w/existing and planned infrastructure.	84-87 63-65
<b>Natural Hazard Areas: Goal:</b> Conserve/maintain barrier dunes, beaches, flood plains, & other coastal features for natural storm functions & their natural resources w/recognition to public health, safety, and welfare issues.	88
○ <b>Objective:</b> minimize threats to life, property, & natural resources from development located in/adjacent to hazard areas.	88-89
○ <b>Requirements:</b> density/intensity criteria for new/existing development & redevelopment including public facilities and infrastructure to better avoid or w/stand natural hazards; Correlate existing and planned development with existing and planned evacuation infrastructure.	88-89 FLUM
<b>Water Quality: Goal:</b> Maintain/protect where possible enhance WQ in all coastal wetlands, rivers, streams & estuaries.	90
○ <b>Objective:</b> help ensure that WQ is maintained if not impaired & improved if impaired.	90-92
○ <b>Requirements:</b> Policies that help prevent or control nonpoint source discharges; policies aimed at protecting open shellfishing waters/restoring closed or conditionally closed.	90-92
<b>Local Areas of Concern: Goal:</b> Integrate local concerns with the overall goals of CAMA.	93
○ <b>Requirements:</b> Evaluate local concerns and issues for the development of goals, policies and implementation strategies.	93-96
<b>Future land use map.</b> Depicts policies application for growth and development, desired future patterns of land use/development with consideration given to natural system constraints & infrastructure policies. Shall include at a minimum:	Section 3 & Map Appendix 39,52
○ 14-digit hydrological units encompassed by the planning area;	
○ areas/locations planned for conservation/open space w/description of compatible uses	107-108
○ areas/locations planned for future growth/development w/descriptions of:	97-107
○ predominant & supporting land uses that are encouraged in each area;	
○ overall density/development intensity planned for each area;	97-107
○ areas for infill, preservation, and redevelopment;	97-107
○ existing/planned infrastructure, including major roads, water, and sewer.	62-65
<b>Tools for Managing Development.</b> (initial five-year action plan for implementation)	Section 4
○ <b>Guide for land use decision-making</b>	109-113
○ <b>Existing development program.</b> This description of community's approach to coordinating these codes and rules to implement the LUP.	109-113
<b>Policy Impact Analysis</b>	
○ Contain description of type/extent of analysis to determine the impact of Plan policies on management topics; both positive & negative; description of policies/methods/programs & processes to mitigate negative impacts on applicable management topics.	Section 5 114-123 & Appendix I
○ If local policies exceed the State and Federal requirements, such policies must be identified & to what extent. If the local body intends to rely on Federal/State laws & regulations it shall reference in the plan.	Policies 48 & 67
❖ If development patterns/uses are not consistent w/natural systems analysis, or the LSA, then includes description of steps local government will take to mitigate the impacts.	N/A
❖ Include estimate/cost of any facilities or services that shall be extended or developed.	62-65
❖ Amount of land allocated to various uses shall be calculated and compared to the projection of land needs. The amount of land area thus allocated to various uses may not exceed projected needs; except for slow growth communities.	61

## **Table of Contents**

### **Phase I**

Executive Summary and Introduction .....	1
<b>Section 1: Community Concerns and Aspirations .....</b>	<b>8</b>
A. Significant Existing & Emerging Conditions .....	8
B. Key Issues .....	10
C. Community Vision .....	10
<b>Section 2: Analysis of Existing Conditions .....</b>	<b>12</b>
A. Population .....	12
(1) Current Permanent Population Estimates.....	13
(2) Current Seasonal Population Estimates.....	14
(3) Population Projections.....	14
(4) Key Population Characteristics .....	18
(5) Age of Population.....	20
(6) Income.....	21
B. Housing Stock .....	24
(1) Current Housing Stock .....	24
(2) Building Permits Issued .....	27
C. Local Economy .....	27
(1) Employment By Major Sectors .....	28
(2) Unemployment.....	29
(3) Description of Community Economic Activity .....	29
<b>Section 3: Natural Systems Analysis .....</b>	<b>31</b>
A. Description and Analysis of Natural Features and Environmental Conditions of Calabash's Planning Jurisdiction.....	31
(1) Areas of Environmental Concern .....	31
a. The Estuarine System .....	32
b. Ocean Hazard Areas .....	33
c. Public Water Supplies .....	34
d. Natural & Cultural Resource Areas .....	34
(2) Soil Characteristics.....	34
(3) Water Quality Classifications.....	38
(4) Shellfish Growing Areas & Primary Nursery Areas .....	40
a. Primary Nursery Areas.....	40
b. Secondary Nursery Areas .....	41
c. Special Secondary Nursery Areas.....	41
(5) Flood Hazard Areas.....	42
(6) Storm Surge Areas .....	43
(7) Non-coastal Wetlands (Probable 404 Wetlands) .....	45



(8) Water Supply Watersheds & Wellhead Protection Areas.....	46
(9) Environmentally Fragile Areas .....	46
a. Wetlands.....	46
b. Natural Heritage Areas .....	47
c. Areas Containing Endangered Species .....	48
d. Prime Wildlife Habitats .....	48
(10) Additional Natural Features Identified by Calabash.....	48
 <u>Section 4: Composite Map of Environmental Conditions.....</u>	 49
A. Class I - land containing only minimal hazards and limitations that may be addressed by common land planning and development practices.....	49
B. Class II - land containing development hazards and limitations that may be addressed by methods such as restrictions on types of land uses, special site planning, or the provision of public services.....	49
C. Class III - land containing serious hazards for development or lands where the impact of development may cause serious damage to the functions of natural systems.....	50
 <u>Section 5: Environmental Conditions.....</u>	 51
A. Water Quality.....	51
(1) Status and changes of surface water quality.....	52
(2) Current situation and trends on permanent and temporary closures of shellfishing waters .....	52
(3) Areas experiencing chronic wastewater treatment system malfunctions.....	53
(4) Areas with water quality or public health problems related to non-point source pollution.....	53
B. Natural Hazards.....	53
(1) Areas subject to storm hazards such as recurrent flooding, storm surges, and high winds.....	54
(2) Areas experiencing significant shoreline erosion as evidenced by the presence of threatened structures or public facilities .....	54
(3) Estimates of public and private damage resulting from floods and wind since the last plan update.....	55
C. Natural Resources .....	55
(1) Environmentally fragile areas - where resource functions may be impacted as a result of development.....	55
(2) Areas containing potentially valuable natural resources.....	56
 <u>Section 6: Analysis of Land Use &amp; Development.....</u>	 57
A. Existing Land Use Map.....	57
B. Land Use Analysis .....	57
(1) Types of land use in Calabash.....	57
(2) Description of any land use conflicts .....	58
(3) Description of any land use - water quality conflicts.....	58
(4) Description of development trends .....	59
(5) Areas expected to develop during the 5 year period following plan certification & potential conflicts with Class II or Class III land .....	59

C. Historic, Cultural, & Scenic Areas.....	60
(1) Historic Areas.....	60
(2) Scenic Areas.....	61
D. Projections of Future Land Needs.....	61

<u>Section 7:</u> Analysis of Community Facilities.....	62
A. Water Supply Systems.....	62
B. Wastewater Systems.....	63
C. Transportation Systems.....	65
D. Stormwater Systems.....	69

<u>Section 8:</u> Land Suitability Analysis.....	72
--	----

<u>Section 9:</u> Review of Outcomes from the Current Town of Calabash Land Use Plan.....	74
---	----

## Phase II

### **Part 2 – Plan for the Future**

<u>Section 1:</u> Calabash Community Goals .....	75
A. Comprehensive List of Community Goals.....	75

<u>Section 2:</u> Policies for Growth & Development .....	76
A. Public Access Policies Goals, Objectives and Policies .....	76
B. Land Use Compatibility Goals, Objectives and Policies .....	80
C. Infrastructure Carrying Capacity Goals, Objectives and Policies .....	84
D. Natural Hazards Areas Goals, Objectives and Policies .....	88
E. Water Quality Goals, Objectives and Policies.....	90
F. Local Concerns Goals, Objectives and Policies .....	93

<u>Section 3:</u> Future Land Use Map & Map Classification Categories.....	97
The Future Land Use System.....	97
(1) Business District & Town Center .....	97
(2) Residential .....	102
(3) Conservation.....	107

<u>Section 4:</u> Tools for Managing Development.....	109
A. Role and Status of the Plan .....	109
B. Existing Management Program in Calabash.....	111
C. Activity Implementation Schedule.....	112

<u>Section 5:</u> Policy Analysis.....	114
5.1 Consistency of Land Use Plan Policy with Community Goals .....	114
A. Public Access .....	115
B. Land Use Compatibility .....	115
C. Infrastructure Carrying Capacity.....	116

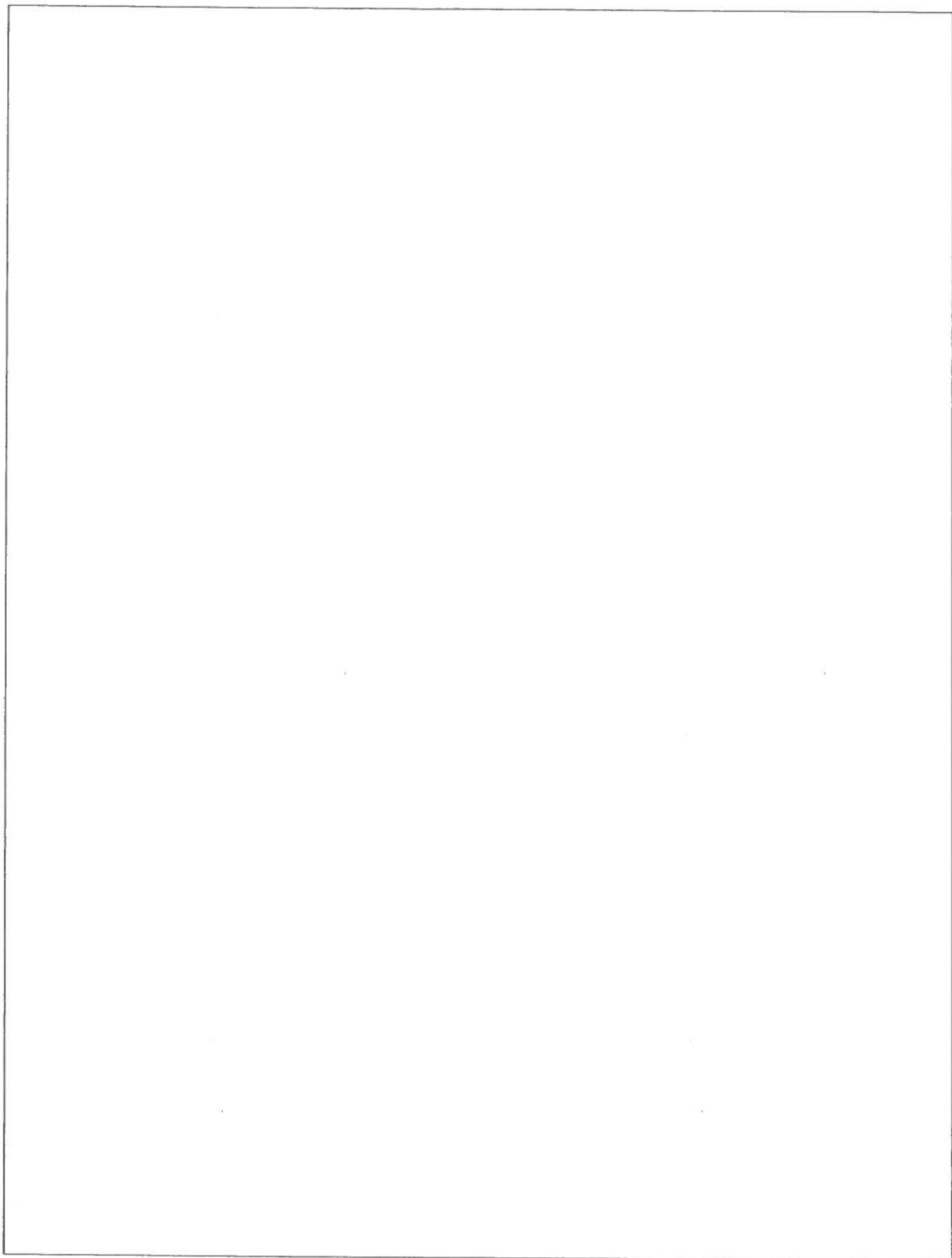
D. Natural Hazards Area.....	116
E. Water Quality .....	117
F. Local Areas of Concern .....	117
G. Policy Impact Analysis.....	118
(1) Policy Impact Analysis Table .....	119
(2) Potential Neutral-Negative Policy Impacts and Mitigation Steps to Minimize Such Impacts .....	119
5.2 Consistency Between Land Use Plan Policy & Future Land Use Map.....	120
A. Residential & Commercial Density .....	121
B. Comparing the Environmental Composite & Land Suitability Maps with the Future Land Use Map .....	121
C. Availability of Water & Sewer to Future Development .....	122
D. Natural Hazards.....	122
E. Protecting Area Waters.....	123
<b>Section 6: Conclusion .....</b>	<b>124</b>

## **Appendix**

Policy Impact Analysis Table.....	Appendix I
Existing Management Program in Implementing Goals and Policies of the Land Use Plan.....	Appendix II
Citizen Participation Plan .....	Appendix III

## **Map Appendix**

Map 1: High Quality Waters Watershed Area Map
Map 2: Closed Shellfish Harvesting Areas Map
Map 3: Floodplain Map
Map 4: Storm Surge Inundation Map
Map 5: Estuarine Waters and Coastal Wetlands Map
Map 6: North Carolina CREWS Exceptional and Substantial Wetlands Area Map
Map 7: Fish Nursery Area and Significant Natural Heritage Area Map
Map 8: Environmental Composite Map
Map 9: Existing Land Use Map
Map 10: Community Facilities Map
Map 11: Transportation Systems Map
Map 12: Land Suitability Analysis Map
Map 13: Future Land Use Map





## **Part 1 - Phase I:**

### **Executive Summary and Introduction**

The Town of Calabash was incorporated in 1973. Development pressure and the types of development occurring have changed considerably since that time in both Calabash and coastal North Carolina. As a means of assisting local governments in the coastal area of North Carolina with growth management, the General Assembly passed, in 1974, the Coastal Area Management Act. This legislation, commonly known as "CAMA," or "the Act," created the Coastal Resources Commission and charged the Commission with the responsibility of balancing the need for economic growth with the protection of coastal natural resources.

CAMA also established the Division of Coastal Management (DCM), which is the official government agency responsible for administering CAMA regulations and programs. DCM uses a jurisdiction's land use plan in making decisions on whether to grant CAMA permits for proposed development projects that are in that jurisdiction. Proposed projects and activities must be consistent with the enforceable policies of the jurisdiction's land-use plan, or DCM cannot permit a project to go forward.

The concept and the requested cooperative effort between the state of North Carolina and the local governments of the 20 coastal counties identified in the CAMA was enormous. People needed to know how to make the vision of balance in the Act a reality. Guidance was necessary. It became clear that two main initiatives were to guide the early coastal management program in North Carolina. The first of these was a cooperative planning program for the management of growth. The second was the permitting effort. These are still the guiding principles of the North Carolina coastal management program.

CAMA required the 20 coastal counties to create land use plans. The Act further required these land use plans to be updated every five years. Once the early County plans were produced and began being used, municipalities realized they would also be impacted by this effort and they began to express a desire to create their own land use plans. The small Towns, with limited numbers of staff, were the last to create these land use plans. The first land use plan for the Town of Calabash was approved in 1989.

The land use plans are created according to a set of "planning guidelines" established by the Coastal Resources Commission. The guidelines are found at subchapter 7B of chapter 15A of the North Carolina Administrative Code (15A NCAC 7B).

### **Summary of The Town of Calabash Land Use Plan**

The major elements of the Town of Calabash Land Use Plan are listed in the Table of Contents. The policies contained in this plan have been thoroughly discussed by the citizens and officials of the Town, and represent what the Town believes is a balancing of various interests and concerns in the community. The purpose of these policies is to provide guidance for future growth and development. The following is a summary of the key components of the Calabash Land Use Plan.

The Town of Calabash population is approaching 1,500 as of 2006, with the majority of the growth occurring in this decade. The population is expected to rise substantially with the recent annexation of a large tract development called "The Pearl" which will have around 2,000 housing units. The Town has an interlocal agreement with neighboring jurisdictions for future annexations. With the Town's preference to continue annexations of large tract developments in its vicinity, the population is expected to range from 4,500 to 10,000 between 2010 to 2015.

Calabash does not have a substantially large overnight seasonal visitation population with only a handful of hotel/motel accommodations, but the level of day trippers visiting restaurants and local businesses, as well as passing through the Town to reach the Myrtle Beach area, approaches 15,000 vehicle passes a day according to traffic count data. The Town is pursuing a revitalization of its commercial center to attract more of these types of visitors.

The Town's **Vision** for their future involves maintaining a small-town character defined as a community with low building heights and having a housing stock which is predominantly single-family and duplex in nature, with multi-family units allowed only by a conditional use permit. The Town will also pursue revitalization and improvements of its riverfront commercial core area. These improvements will include making the area more bicycle and pedestrian friendly, enhancing the streetscape and parking, improving traffic flow, and minimizing stormwater related problems. To better prepare for future growth and development pressure, the Town began in the Late Summer/Fall of 2006 a revision of its zoning ordinance to make it more comprehensive, user-friendly and consistent with its other growth management ordinances such as the subdivision and stormwater ordinances.

Providing sewer infrastructure for all areas of the community is a top priority for the Town. Sewer infrastructure will allow economic redevelopment and revitalization of the downtown area and other developed areas, while having less impact on surface water quality. The Calabash River/Creek runs along the downtown area of Town and is an attraction for residents and tourists, as well as being a primary fish nursery and an SA classified waterbody. The Town feels removing septic system use from the community, which has poorly drained soils, will be an important step in maintaining and possibly improving water quality. The Town has also implemented water quality and natural resource protection ordinances which require a 35-foot buffer of public surface waters and manages the removal of native trees and vegetation.

**Some of the major policies of the Town are listed below:**

- 12)** It is the policy of the Town to increase and improve the availability of parking and public access to the Calabash River.
- 22)** It is the policy of the Town of Calabash that no residential or commercial structure shall exceed thirty-five feet (35') in height [with additional height allowable (up to 10') for roof, architectural, or ornamental features] when measured from ground level.
- 33)** It is the policy of the Town to maintain the community's view of the beautiful and scenic Calabash River and the Town will, through the adoption and enforcement of land use ordinances, limit the development of numerous large houses or large condominium type development projects on the riverfront.

## **25) General Policy on Residential Development**

It shall be the policy of Calabash to encourage the development of a variety of housing types to meet the needs and desires of current and future citizens through the following:

- a) To maintain areas exclusively for conventional single-family dwellings for the growing population.
- b) To provide areas for mobile home parks and manufactured housing development.
- c) To allow the development of duplex, townhome, and/or multi-family units (with conditions) within designated zoning districts.

## **26) General Policy on Commercial Development**

The Town wishes to enhance and promote quality commercial development through the following:

- a) Calabash's economic base consists mainly of services pertaining to tourism as the "Seafood Capitol of the World" and the Town will strive to maintain this heritage as a goal in its comprehensive planning efforts.
- b) The Town will continue to enforce its current development ordinances and local building permit process in order to achieve a desired balance between commercial and residential development. Adequate buffering between residential and commercial development will be required.
- c) The appearance of commercial development will be enhanced by the enforcement of zoning, sign, and landscaping regulations.
- d) The Town of Calabash will support efforts to landscape public areas and to encourage beautification of commercial areas within the Town.
- e) The Town of Calabash will consider the feasibility of developing additional sources of public revenues such as the occupancy tax to support tourist-related services.
- f) The Town of Calabash shall encourage limited commercial centers with a small town character along NC 179.
- g) The feasibility of providing a pedestrian and bicycle pathway system in the Central Business District will be evaluated as part of the comprehensive planning process.



## **How to Use the Land Use Plan**

This Land Use Plan (LUP) has been prepared through detailed work with the Town of Calabash Planning & Zoning Board, Town staff, and the Town Council, and according to planning guidelines created by the State of North Carolina. The planning guidelines are important because they give a framework for creation of the Land Use Plan. The “outline” for the LUP was taken directly from the CAMA land use planning requirements found in 15A NCAC 7B and can be seen in the Table of Contents in this Land Use Plan. The best source for finding specific information in this Land Use Plan is the Table of Contents.

The Land Use Plan was created in two parts. Part One gives a summary of community concerns and aspirations, an analysis of existing and emerging conditions, and an analysis of natural systems and environmental conditions. Part Two gives a summary of community goals, a detailed list of Town policies for land use development, and a future land use map and description of each future land use category. It is important to note that the Future Land Use Map (Map 13), and its associated designation descriptions for density, intensity and land-use (Part 2: Section 3), serves as Town policy in addition to the actual policy statements in Part 2: Section 2.

## **The Function and Utility of the Land Use Plan**

There are four key functions of planning and a land use plan. First, a land use plan provides a source of information for basing public policy and governmental decisions. The planning process helps provide knowledge and understanding of the local area’s population, demographics, economy, natural environment, community capacity for growth, and overall development trends. Secondly, a plan’s policies provide guidance for government decisions in formulating future decisions on public and capital investment, as well as zoning and other development regulations. The third function of a plan is to provide a preview or predictor of future government action. The public, local government staff and developers are better informed and able to understand and predict how a government will make decisions if a plan and its policies are in place and followed. The fourth function of a plan and the on-going planning process is to provide the general public, the Planning Board, staff, and elected officials the opportunity to address and discuss issues important to the local area and to shape policies and regulations to best meet the goals of the community.

**NOTE:** An additional important day-to-day function of a land use plan is basing approval of CAMA development permits for projects in the local community on whether the impacts and purpose of the proposed project are consistent with the policies set forth in the plan. Types of development projects that require CAMA permits are discussed later. In addition, the plan and its policies may be used by other state and federal agencies for “consistency review” for permit approval, as well as by the Cape Fear Rural Transportation Planning Organization (RPO) and the Department of Transportation (DOT) for transportation planning purposes.

The following section provides background information on CAMA permitting for development and the role the land use plan plays in determining whether development permits will be issued.

## The CAMA Permit Process

The Coastal Area Management Act (CAMA) requires permits for any development in specially designated areas called **Areas of Environmental Concern (AEC)**. In Calabash, **AECs** are generally those areas that are in close proximity to water (river, sound, ICWW, etc.) or marsh (wetlands). A CAMA permit must be acquired if a development project meets all of the following conditions:

- The project is located within one of the 20 coastal counties of North Carolina
- The project is considered "development" under CAMA
- The project is within, or affects, an Area of Environmental Concern established by the Coastal Resources Commission;
- The project does not qualify for an exemption.

## What Qualifies as a CAMA Regulated Development Project?

Besides construction of residential and commercial buildings in an **AEC**, "development" also generally includes activities such as dredging or filling coastal wetlands or waters, and construction of marinas, piers, docks, bulkheads, oceanfront structures and roads. The Coastal Area Management Act (NCGS 113A-103(5)(a)) defines a development project as: "any activity in a duly designated area of environmental concern ... involving, requiring or consisting of the construction or enlargement of a structure; excavation; dredging; filling; dumping; removal of clay, silt, sand, gravel or minerals; bulkheading; driving of pilings; clearing or alteration of land as an adjunct of construction; alteration or removal of sand dunes; alteration of the shore, bank or bottom of the Atlantic Ocean or any sound, bay, river, creek, stream, lake or canal".

## What is an Area of Environmental Concern?

According to the Division of Coastal Management's *CAMA Handbook for Development in Coastal North Carolina*, protecting and managing Areas of Environmental Concern is the basis for the CAMA permitting program. An AEC is generally an area of natural significance, which requires special management because it may be easily destroyed by erosion, flooding, or human activity; or it may have environmental, social, economic or aesthetic values that make it a valuable resource. The CRC designates particular areas as AECs to protect them from unmanaged development, which may cause irreversible damage to property, public health or the environment. AECs cover almost all 'navigable' coastal waters and about 3 percent of the land in the 20 coastal counties. As mentioned earlier, in Calabash the **AECs** are generally those areas that are in close proximity to water (river, sound, ICWW, etc.) or marsh (wetlands).

The CRC has established the following four categories of AECs:

- The Estuarine and Ocean System (coastal wetlands, public trust and estuary waters, and estuarine shoreline); (All categories applicable in Calabash).
- The Ocean Hazard System (ocean erodible setback area, un-vegetated beach area, inlet hazard area, and high hazard flood area); (High Hazard Flood Area is the only applicable category of the "Ocean Hazard System" in Calabash).

- Public Water Supplies (small surface water supply watershed and public water supply well-fields); (Not Applicable in Calabash).
- Natural and Cultural Resource Areas (coastal complex natural areas, coastal areas that sustain remnant species, unique coastal geologic formations, significant coastal archaeological resources and significant coastal historical archeological resources). (The only identified "Natural and Cultural Resource" areas in the Calabash planning jurisdiction is the Colkins Neck Remnant area in the southeast corner of the Calabash ETJ near South Carolina. However, this area has not been designated an AEC).

A development project is likely in an AEC if it is:

- in, or on the shore of, navigable waters within the 20 CAMA counties;
- on a marsh or wetland;
- within 75 feet of the normal high water line along an estuarine shoreline;
- near the ocean beach (e.g. within 60'-120');
- within an ocean high hazard flood area (VE Zones on official flood maps);
- near an inlet;
- within 30 feet of the normal high water level of areas designated as inland fishing waters by the N.C. Marine Fisheries Commission and the N.C. Wildlife Resources Commission;
- near a public water supply;
- within 575 feet of Outstanding Resource Waters defined by the Environmental Management Commission.

For more information on the *CAMA Handbook for Development in Coastal North Carolina* and for mitigating steps required during development, see the following web-page;  
<http://www.nccoastalmanagement.net/Handbook/contents.htm>

### **What Are the Types of CAMA Permits?**

There are currently three types of development permits: major permits, general permits and minor permits. The Division of Coastal Management makes permit decisions after considering agency and public comments, and after determining whether a proposed project meets CRC rules and is consistent with the policies of the local government's land use plan.

The CAMA permit system is divided into major and minor permits, based on the potential impacts and size of a development project.

**Major permits** are necessary for activities that **require other state or federal permits** (such as stormwater and sedimentation control), for projects that cover more than 20 acres or for construction covering more than 60,000 square feet. Applications for major permits are reviewed by ten state and four federal agencies before a decision is made.



**Minor permits** are required for projects, such as single-family houses, that do not require major permits or general permits. Permits are reviewed, issued and administered to CRC standards by local governments under contract with the Division of Coastal Management.

The Town of Calabash issues CAMA minor permits.

**General permits** are used for routine projects that usually have little or no threat to the environment.

For detailed information on permit categories refer to *Section 5: Applying for a CAMA Permit*, located at this web address <http://www.nccoastalmanagement.net/Handbook/contents.htm>.

Some development may be authorized by exemption certificate. Section 103(5)(b) of the Coastal Area Management Act exempts the following activities from permitting requirements:

- road maintenance within a public right-of-way;
- utility maintenance on projects that already have CAMA permits;
- energy facilities covered by other laws or N.C. Utilities Commission rules;
- agricultural or forestry production that doesn't involve the excavation or filling of estuarine or navigable waters or coastal marshland (Note: these activities are not exempt from permitting requirements under the state's Dredge and Fill Law);
- agricultural or forestry ditches less than 6 feet wide and 4 feet deep;
- emergency maintenance and repairs when life and property are in danger; the construction of an accessory building usually found with an existing structure, if no filling of estuarine or navigable waters or coastal marshland is involved.

## **Part 1**

### **Section 1: Community Concerns and Aspirations**

The purpose of this land use plan section is to provide guidance and direction for plan development on the sensitive matter of community concerns and aspirations.

#### **A. Significant Existing & Emerging Conditions**

Significant existing and emerging conditions have been identified through discussion with the Planning Board, through citizen input during the Planning Board's meetings, through discussions with Town staff, and in conversations with citizens. The conditions or issues of primary interest are those growth related conditions which influence land use, development, water quality (and other environmental concerns), as well as quality of life issues in the planning area.

The list of existing and emerging conditions shown below was the result of discussion with the Planning & Zoning Board on November 1, 2004. Issues below are phrased to resemble the actual comments in order to retain original intent.

- Infrastructure is extremely important for the future growth of our community, primarily sewer.
- Water and sewer will be extremely important to the future growth of Calabash ... roads and road improvements are also important.
- Economic growth is important to Calabash, need the infrastructure in place to support to support this growth.
- The Town's tax base could be hurt by development around, rather than in, Calabash
- Can't plan for expansion because of the lack of sewer.
- Need to focus on revisions to our zoning ordinance and particularly concentrate on those areas where we will have development – those areas in our planning jurisdiction which are now vacant.
- Calabash should enhance the positive ... we want people coming in for the restaurants and we want this aspect of our Town to grow.
- architectural approval of style of development to maintain and enhance our small fishing village image/culture is important ... we want to enhance what is already in place
- People come to Calabash, and will continue to come to Calabash, to get away from Myrtle Beach.
- Commercial fishermen are still making a living off of the Calabash waterfront – the Town strongly desires to keep a working waterfront.
- Parking is a problem in the downtown/waterfront area in the summertime.
- The riverfront needs parking improvements — directional signals and cooperation amongst restaurant owners.
- Want to avoid the developers putting big houses or condos on the riverfront.
- In the summer (and year 'round but with less volume) people come to Calabash for the restaurants ... it is more of a phenomenon where visitors are visiting the restaurants rather than the Calabash residents.
- Sidewalks are necessary to get people walking around Town rather than driving ... some are

- planned and will be installed soon ... more sidewalks are needed.
- Zoning ordinance has parking in front of businesses ... need a more imaginative approach to this than what we have always had in the past ... parking could be in back, for example.
  - Calabash wants to continue the fishing village image. The “fishing village” image includes having a commercial waterfront with seafood-related commerce and fishing vessels.
  - Calabash would like to have a public riverwalk.
  - The Town should buy an area downtown and create a park as a centerpiece ... as a place for gathering ... as a start for municipal improvements to the downtown area.
  - Water quality in the Calabash River should be kept up.
  - There is no boat access nearby and there needs to be ... Ocean Isle is the closest spot ... private access, which we pay for, is available but not ideal in any case because of the lack of room for proper parking and facilities in disrepair.
  - Parking for boat access is a tough issue because cars with boats and trailers need lots of room and land is expensive.
  - Residents need to abide by local ordinances – grass cut ... clean up junk.
  - We need some recreational opportunities for young people.
  - Calabash needs a park and/or a ballfield ... there are currently no parks owned by the Town and the nearest County park is 15 miles away.
  - Calabash residents desire to keep the tax rate low.
  - Sidewalks need to be built when new development is constructed and then these portions of sidewalk can be tied to other pieces which will follow.
  - Some neighborhoods in Calabash have not been built to current standards and we need to be strict about what type of development we allow.
  - Drainage issues are important for Calabash.
  - Some areas of Calabash do not handle stormwater well.
  - Stormwater in Calabash is handled on a site-by-site basis rather than through a comprehensive approach.
  - We currently have good medical services available for residents and visitors – services will need to grow with the population.
  - Calabash does not have a crime problem – police service will not need to expand.
  - The Brunswick County sheriff’s department provides police type services in Calabash ... this is felt to be all that is necessary now and for the planning period (20 yrs).
  - The tax base would need to be increased if we ever wanted to afford a police department.
  - Calabash needs to be more aggressive on expansion – by annexation.
  - The area middle school seems to be operating at over capacity.
  - Brunswick County professional educators/teachers feel the County is a good place to live and work.
  - We have award-winning schools in the area.
  - Brunswick Community College will continue to expand through time and will continue to serve the area well.
  - We need to balance development and growth with environmental protection.

## **B. Key Issues<sup>1</sup>**

Issues identification is a continuing process for local governments. As a part of the process in the creation of this land use plan, a Planning Board and citizen brainstorming session to identify issues and assets was held at a regular meeting of the Town of Calabash Planning Board on October 4, 2004. The resulting list of key issues, in prioritized order and with prioritizing vote, is as follows:

### **# of votes — Issue**

- 10 — stormwater (a water quality issue and a flooding/drainage problem)
- 10 — sanitary water (system expansion necessary)
- 10 — sanitary sewer (system expansion necessary)
- 10 — mosquito control
- 10 — enforcement of building codes
- 9 — Calabash needs to update and enforce nuisance ordinances
- 9 — we need a recreation area for the public (playground, ballfield, etc.)
- 9 — street lighting
- 8 — we will need to update the Town of Calabash land use ordinances
- 7 — law enforcement upgrades
- 7 — zoning (in general) will need to be an area of increased attention
- 7 — public access to the river needs to be increased and improved
- 7 — work to keep taxes low
- 6 — traffic patterns need study and re-working
- 6 — road maintenance and repair
- 6 — beautification of the waterfront is needed
- 5 — Calabash will need a bigger post office
- 5 — building height restrictions should be maintained
- 3 — add sidewalks
- 3 — traffic lights are needed
- 3 — it is difficult to access some roads
- 2 — eliminate ETJ ... annex all of it
- 1 — Calabash needs a landscaping ordinance and the planting of trees
- 0 — bike paths are needed

## **C. Community Vision**

The Town of Calabash's vision statement was prepared through a facilitated process with the Town's Planning Board acting as the principal responsible board. The Planning Board approved the "vision" and recommended it to the Town Board of Commissioners on January 3, 2005. The vision statement is an important feature of the land use plan because it gives a description of how the area will look in the future. In preparing the "vision", participants were directed to consider the community's driving forces, priority issues, and citizen values and aspirations. The "vision" depicts what the community is seeking to become.

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<sup>1</sup> The list above is the result of a brainstorming session with those present for the Town of Calabash Planning Board meeting on October 4, 2004. Issues were defined as problems or things the Town needs to do something about within the 20 year planning horizon for the Land Use Plan. Issues are presented here in priority order according to a vote by those participating at the Planning Board meeting.



## **VISION STATEMENT – TOWN OF CALABASH**

The Town's desire for future growth and development is to maintain similarities with the existing characteristics of the Town and its comparatively small town environment. The small town environment will ensure building height, density, and type of land use will be managed so that adequate community infrastructure and quality of life are not threatened. To enhance the small town character, the Town seeks to expand upon its restaurant and tourism based economy by promoting sustainable development and redevelopment of areas such as the downtown district and the riverfront in a manner that continues to attract people, such as emphasizing environmental protection, scenic quality and being pedestrian friendly. Furthermore, the Town will seek to expand services, such as sewer collection and stormwater containment, that improve quality of life and lessen the negative impacts of development.

## Section 2: Analysis of Existing Conditions

The analysis of existing conditions as a part of the Land Use Plan gives information on recent trends and patterns in population growth and housing development. Understanding what is happening in the jurisdiction allows Town officials to make more informed decisions and plan ahead for coming situations. The information on the existing conditions in this section should give an indication of what is to come, and should be considered by Town officials during formulation of land use policies, goals and objectives.

### A. Population

This section on population looks at the following growth trend characteristics: Current Permanent Population Estimates, Current Seasonal Population Estimates, Permanent Population Growth Trends, Key Population Characteristics, Age of Population, and Income.

#### (1) Current Permanent Population Estimates

In October of 2005, the North Carolina State Data Center issued an official estimate for the 2003 permanent population of Calabash. It was estimated at that time that there were 1,346 permanent residents of the Town of Calabash.

#### Population Growth Comparison for NC and SC Coastal Municipalities 1990-2004

(Source: U.S. Census 1990 and 2000, U.S. Census Estimates 2004, NC State Demographer)

Municipality	1990 Pop.	2000 Pop.	% Growth Rate (1990-2000)	2004 Pop.	% Growth Rate (2000-2004)
Bald Head Island	78	173	121%	246	42%
<b>Calabash</b>	<b>1,210</b>	<b>715</b>	<b>-40%</b>	<b>1,346</b>	<b>6%</b>
Carolina Beach	3,630	4,778	32%	5,192	8%
Caswell Beach	175	370	111%	457	23%
Holden Beach	626	792	26%	835	5%
Kure Beach	619	1,512	144%	2,020	33%
Oak Island	4,550	6,627	45%	7,281	9%
Ocean Isle Beach	534	430	-19%	483	12%
Shallotte	965	1,381	43%	1,533	11%
Southport	2,369	2,374	0%	2,612	10%
Sunset Beach	311	1,852	495%	2,095	13%
Surf City	970	1,413	46%	1,641	16%
Topsail Beach	362	473	31%	523	10%
Wrightsville Beach	2,937	2,593	-11%	2,539	-2%
Emerald Isle	2,434	3,486	43%	3,648	4%
Kitty Hawk	1,937	2,991	54%	3,313	10%
Kill Devil Hills	4,238	5,897	39%	6,425	8%
Brunswick County	50,985	73,143	43%	85,034	16%
<b>SOUTH CAROLINA</b>					
Atlantic Beach	446	351	-21%	364	3%
North Myrtle Beach	8,636	11,121	29%	13,160	18%
Myrtle Beach	24,848	23,401	-.05%	25,410	8%
Surfside Beach	3,845	4,439	15%	4,661	5%
Horry County	144,053	196,629	36%	217,608	10%
<b>Average</b>					<b>12%</b>
<b>Calabash Rank*</b>	<b>11<sup>th</sup> Highest</b>	<b>6<sup>th</sup> Lowest</b>	<b>Lowest</b>	<b>7<sup>th</sup> Lowest</b>	<b>5<sup>th</sup> Lowest</b>

\*Ranking includes municipalities only. There are 21 municipalities in the ranking.



The current size of the population places the Town of Calabash 10<sup>th</sup> in size (according to population) of the 19 municipalities within Brunswick County. The population decrease in Calabash from 1990 and 2000 was due to the splitting of the Town into two separate municipalities, Carolina Shores and Calabash. Like other Brunswick County municipalities since 2000, Calabash has been rapidly growing. With several recent large annexations in 2005, the Town of Calabash could easily increase 600-700% in size over the next ten years if future proposed developments are inhabited with permanent residents.

## **(2) Current Seasonal Population Estimates**

The seasonal "peak" population in Calabash is composed of four population segments:

- 1) the permanent population;
- 2) out of town property owners who use their Calabash residences on the weekends and during the summer;
- 3) the overnight visitor population who stay at the Calabash Motel; and
- 4) day visitors that come to Calabash for restaurants, recreation (golfing), and tourist related business

As a starting point for seasonal peak population estimate, the current permanent population estimate is used as a base number. As described in the previous section the current permanent population is estimated at 1,346. The next component of the seasonal peak estimate includes the out of Town property owners who only use their residences during some portion of the year. For purposes of this estimate, a 90% occupancy rate is assumed for the total number of housing units.<sup>2</sup> The total number of occupied housing units is 572<sup>3</sup>. If 90% (or 514) of housing units are occupied at an occupancy rate of 3 persons per occupied dwelling (a reasonable estimated), we have a resident seasonal population increase of 208 persons for a total resident population of 1,564 persons. This represents a 15% increase over the permanent year round estimate.

The third component consists of the number of persons in overnight accommodations. The Calabash Motel is the only motel or hotel in Calabash and it has 9 rooms. A standard number, frequently used, for the number of seasonal visitors occupying a motel unit is 3.5 persons. Therefore, when all units at the Calabash Motel are occupied, the additional number of people on the municipal infrastructure and support systems is 32.

### **Number of Motels/Hotels in Town & within ETJ, 2004<sup>4</sup>**

<u><b>Motels</b></u>	<u><b>Number of Rooms</b></u>	<u><b>In Town</b></u>	<u><b>In ETJ</b></u>
1	9	1	0

<sup>2</sup> According to the U.S. Department of Commerce, Bureau of the Census, in 2000 there were 519 housing units in Calabash. According to the Town of Calabash, 53 in-Town housing units (of various types) have been added since 2000. The in-Town total housing units for 2003 is estimated to be 572.

<sup>3</sup> Ibid.

<sup>4</sup> This information was received from the Town of Calabash in October 2004.

**SEASONAL RESIDENT POPULATION – 2004**

Current Permanent Population = 1,346

Vacation Homes/Seasonal Residents = 208

Motel/Hotel Overnight Residents = 32

**TOTAL = 1,586**

The number of day visitors to Calabash is quite large. Many people from the area visit for restaurants, resort attractions, or golf. The most obvious and pronounced effect this group of visitors has on the community is on traffic and parking. The impact upon water and sewer service is noticed through restaurant, retail, and golf clubhouse use.

The most recent AADT (average annual daily traffic) in the Town of Calabash is around 17,000 vehicle passes per day in the main downtown thoroughfare. Much of the traffic generating the 17,000 vehicle passes are visiting local restaurants or retail or passing through from neighboring North Carolina beaches such as Ocean Isle Beach and Sunset Beach, or from North Myrtle Beach and Myrtle Beach. As highway 179 (which runs through Downtown Calabash) is a thoroughfare connecting North Carolina and South Carolina, it is difficult to estimate how many stop in Calabash for a day-trip. However, it is likely that there are several thousand (up to 8,500 based on traffic counts) day-trip visitors in Calabash on holidays and during the peak season.

“The Thistle” golf course also attracts day visitors. It is believed the golf course average 110 rounds of golf each day.

**Seasonal Projections****Calabash Seasonal Population Projections: 5 & 10 Year**

Calabash 2003 seasonal population = 1,574

Calabash 2008 seasonal population projection = 1,811 (The increase anticipated is 15.1%.)

Calabash 2013 seasonal population projection = 2,065 (The increase anticipated is 31.2%.)

**Calabash Seasonal Population Projection for 2023**

Calabash seasonal population projection for 2013 = 2,065

Calabash seasonal population projection for 2023 = 2,484 (The increase anticipated is 20.3%.)

**(3) Population Projections<sup>5</sup>**

In order to adequately plan for infrastructure, housing, commerce and recreation needs that may occur as a result of population growth, it is often necessary to estimate the level of future increases in population. These estimates are typically based on the land available in a community and the amount of housing that may be developed to support increases in population.

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<sup>5</sup> Population facts were received from the U.S. Department of Commerce, Bureau of the Census (1990 & 2000), and from the North Carolina State Data Center.

The State of North Carolina grew by over 1.4 million people between the 1990 and 2000 federal censuses. The fastest growing county was Johnston (50.0% growth), followed by Wake (47.3%), Hoke (47.2%), Union (46.9%), Brunswick (43.5%), and Pender (42.4%). From 2000 to 2003 the estimated population of North Carolina grew from 8,049,313 to 8,418,090 for a growth rate of 4.5%. During this same period Brunswick County grew from 73,141 (2000) to 81,810 (2003) for a growth rate of 11.8%.

Official growth numbers for the period from 1990 to 2003 for the Town of Calabash show the population also grew during this same period of time from 1,210 (1990) to 1,334 (2003). This was a 10.2% growth for the Town of Calabash. However, these simple numbers on population growth for Calabash do not accurately reflect the situation. During this period the population of Calabash did grow, but annexations and legislative de-annexation in Calabash have somewhat skewed the numbers and give us no basis for a trend analysis. Therefore, with the projections in this section, Brunswick County will be used as a comparative basis for growth.

### **Population Assumptions**

It should be noted that the projection of population is only an estimate and is based on some assumptions that certain factors such as; the density allowable in the current zoning ordinance will remain constant, the housing market will remain constant, and the Town boundaries will remain or expand at a constant rate.

### **Specific Factors Effecting Calabash Population Growth**

The primary forces causing in migration to Calabash over the next 20 years will be:

- Available and undeveloped vacant land in close proximity to regional population centers (Wilmington and Myrtle Beach).
- Available, affordable, and undeveloped vacant land in close proximity to resort beaches.
- The entire municipality will have a public sewer and a public water system available.
- Municipal population will increase by annexation.
- New roads and bridges providing quick access to the region from Calabash.
- New tourism type industry will locate in Town and will create jobs.
- New restaurants will open in Calabash.
- Calabash keeping consistent with the constant growth of surrounding Towns and the region.
- The continuing rapid growth of all of Brunswick County (especially those areas along the beaches or in close proximity to U.S. Highway 17).
- Calabash offers a more rural environment and less dense living environment – not available in Wilmington or Myrtle Beach.
- Better housing opportunities available in Calabash than in outlying rural areas.
- Calabash has good government — government responsive to the needs of people.

As the table below shows, there have been several changes to the size of the Town in the last decade, and more changes are expected in the future. These changes have made applying a smooth long-term trend predicting growth difficult. The periodic changes also make it difficult to project population growth at a specified rate over an extended period of time.



### Calabash Population, 1997-2003<sup>6</sup>

1997 = <b>2,041</b>	This was the State Data Center's estimate for the last year in which what was to become Carolina Shores was included as a part of the official population estimate for the Town of Calabash.
1998 = <b>795</b>	This is the official estimate with the removal of Carolina Shores. The removal of the area previously annexed (by statute in 1989) and which later was to become Carolina Shores was done by House Bill #860 this year. The re-writing of the Town's boundary also included property which was previously not a part of the Town.
1999 = <b>1,027</b>	State Data Center estimate
2000 = <b>711</b>	The decrease in population from the previous year was caused as a result of an adjustment caused by the decennial census count.
2001 = <b>1,315</b>	The increase here was the official estimate based upon the annexation of several subdivisions. Much of the ETJ was annexed at this time.
2002 = <b>1,330</b>	State Data Center estimate
2003 = <b>1,334</b>	State Data Center estimate

The population of Calabash<sup>7</sup> in 1990, according to the census, was 1,210. In the year 2000, according to the census, the population was 711. In the year 2003, according to the State Data Center estimate, which based upon the 2000 census count, the population estimate was 1,334. Therefore the growth rate between 1990 and 2003 was 10.2%. The rate of growth between 2000 and 2003 was 87.6%. The large fluctuations in population over time due to the split of the municipality and large annexations make it difficult to find a steady growth percentage to apply to a formula predicting the future population of Calabash. In its place, the County predicted growth rate will be used as Calabash's future growth rate, realizing that the Town will substantially exceed this growth rate with recent large annexations and expected continued annexations in the coming years.

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<sup>6</sup> This information was received from the Town of Calabash Department of Administration and the NC State Data Center, October 2004.

<sup>7</sup> Calabash population: 1990 = 1,210; 2000 = 711; and 2003 = 1,334, according to the State Data Center and the Bureau of the Census (1990 & 2000).

### Calabash Permanent Population 20-year Growth Projection

	2003 (State Demographer Certified)	2005	2010	2015	2020	2025
<b>Permanent Population Growth Projection</b>	1,334	1,427 <sup>1</sup>	4,467- 7,267 <sup>2</sup>	9,000 – 10,000 <sup>3</sup>  'With no additional annexations, the population could be around the 8,000 range based on 1% annual growth)	10,500 – 12,500 <sup>4</sup>  'With no additional annexations, the population could be around the 8,400 range based on 1% annual growth)	11,000 – 13,000 <sup>5</sup>  'With no additional annexations, the population could be around the 8,820 range based on 1% annual growth)

NOTE: Estimates from 2010 to 2025 were rounded up or down to the nearest 500 because of the wide range in actual possible population growth.

<sup>1</sup> Based on the North Carolina State Demographer's expected annual county growth rate of 3.5%.

<sup>2</sup> Based on 25% growth over 7-year period (2003-2010) and additional recent municipal annexations, which could contribute 2,800 new housing units (Pine Bur Acres and The Pearl) at an estimated 2 persons per unit by 2010. A range of 4,467 to 7,267 is given because of the currently unknown phasing of the developments and changing market conditions. These ranges are dependent on the new development projects to be 50% to 100% occupied by 2010, which is not likely, this rate of occupation is more likely to be achieved between 2010 and the years immediately after.

Fx:  $[(1,334 \times .25) + 1,334] + [2,800 \times 2] = 7,267$

NOTE: (The annual growth rate for the county and municipality is expected to decrease from 3.5% annually from 2000-2010 to 2% to 2010-2025, primarily due to the amount of developable land decreasing thereby decreasing the level of population growth.

<sup>3</sup> Based on expected annual 2% growth (family size increase, infill and increases in permanent vs. seasonal residents in existing limits) over the 2010-2025 period and additional annexations, which could likely consist of 500 to 1,000 more units. The ".1" value below means 10% (i.e. the 2% annual growth applied over 5 years).

Fx:  $[(7,267 \times .1) + 7,267] + [500 \times 2] = 8,993$  or  $[(7,267 \times .1) + 7,267] + [1000 \times 2] = 9,993$

<sup>4</sup> Based upon assuming a lower projection of only 1% annual growth (just increases in family size and permanent residents) in existing limits over 5-year period, as land within existing limits is fully built-out and assuming municipality does not increase density standards substantially from current levels if large amounts of redevelopment were to occur. However, given amount of developable land surrounding the municipality and a trend of continued annexation, it is not unlikely that an additional 500 to 1,000 units could be added during 2015 to 2025.

Fx:  $[(8,993 \times .05) + 8,993] + [500 \times 2] = 10,442$  or  $[(9,993 \times .05) + 9,993] + [1,000 \times 2] = 12,492$

<sup>5</sup> Based upon assuming 1% annual growth (just increases in family size and permanent residents) in existing limits over 5-year period.

Fx:  $[(10,500 \times .05) + 10,500] = 11,000$  or  $[(12,500 \times .05) + 12,500] = 13,000$

## **Discussion on Growth Projections**

The permanent population of the Town of Calabash is expected to increase dramatically between the years 2008 to 2010, and the years immediately following, due to the Town's annexation in 2005 of large tracts adjacent to its jurisdiction. The most notable is the 800-acre and just over 2,000 dwelling unit Planned Unit Development called "The Pearl". The Pearl will be a private mixed-use and golf/recreation development. The population growth projections for 2010 and beyond may vary widely as the annexed developments are constructed and occupied in phases. However, it is expected that much of the construction and occupation of housing for the recently annexed areas will occur between 2008 and 2012.

Water and sewer infrastructure for The Pearl will be provided by Brunswick County and not the Town of Calabash. According to The Pearl's engineers regarding the development's Traffic Impact Analysis (TIA), area roads servicing The Pearl have been designed and improved to accommodate The Pearl's original plan of 3,700 dwelling units (the development has been scaled back to just over 2,000 units). Also according to The Pearl's engineers, the flexibility of design offered by the PUD has allowed the development to be planned without necessitating 404 wetland disturbance and associated permits.

### **(4) Key Population Characteristics**

The decennial census is the best source for community socioeconomic data. Many of the facts reported in the U.S. Census may serve to characterize a community. It is important, for purposes of characterizing a community, that the community be compared to other similar areas. For purposes of this characterization, other municipalities in Brunswick County have been used.

The median age of residents of the Town of Calabash is 57.9 years. Among municipalities in Brunswick County we find this to be comparably older. In fact, of the 19 municipalities in Brunswick County in 2000, Calabash had the 5<sup>th</sup> highest median age. The Brunswick County municipality with the highest median age was Carolina Shores (67.6) and the lowest median age was Belville (27.1). The median age in all of Brunswick County was 42.2. In North Carolina the median age in 2000 was 35.3. This statistic characterizes the Town of Calabash as a retirement oriented community.

In Calabash, 74.2% of the total housing units were occupied all year. This percentage, when compared with other Brunswick County municipalities, puts Calabash as 12<sup>th</sup> amongst municipalities in the percentage of their total housing stock occupied year-round. The Brunswick County beach communities generally have a higher percentage of house unoccupied during some portion of the year ... usually winter. In NC the percentage of housing units occupied all year is 88.9%. In Brunswick County this figure is 59.2%. The highest percentage occupied among Brunswick County municipalities was Carolina Shores (91.4%). The lowest was Ocean Isle Beach (8.3%).

The percentage of persons in the labor force (16 and over) at Calabash was 55.8%. Calabash was 9<sup>th</sup> highest of the Brunswick County municipalities when examining census data for the percentage of persons (16 and over) in the work force. While the residents of this community may be older in age, they are reported as working at a relatively high rate among the other



municipalities to which they are compared. Calabash also compares favorably in this category with Brunswick County as a whole, at 57.7%, and with all of NC, at 65.7%.

The median household income in the Town of Calabash (\$32,946) is 16<sup>th</sup> highest among Brunswick County municipalities. This is a lower median household income than Brunswick County as a whole (\$35,888) and is lower than the NC median (\$39,184). The highest median household income among all Brunswick County municipalities is found at St. James (\$92,656). The lowest is found at Navassa (\$25,375).

The median family income in the Town of Calabash (\$38,403) is the 14<sup>th</sup> highest amongst Brunswick County municipalities. This is a lower median family income than Brunswick County as a whole (\$42,037) and is lower than the NC median family income (\$46,335). The highest median family income for Brunswick County municipalities is in St. James (\$93,930). The lowest is found at Navassa (\$35,179).

The per capita income in the Town of Calabash (\$22,975) is 10<sup>th</sup> highest among the municipalities of Brunswick County. This is a higher per capita income than in Brunswick County as a whole (\$19,857) and is higher than the NC per capita income (\$20,307). The highest per capita income among Brunswick County municipalities is found at St. James (\$50,567). The lowest is found at Navassa (\$11,328).

When considered as a whole, the income figures from the U.S. Census give us a picture of the Town of Calabash as an above average income municipality.

Within the Town of Calabash, according to the U.S. Census (2000), 56.5% of the total housing is in single unit/detached housing. There are relatively few manufactured or mobile homes within the Town of Calabash. (Of the 519 in Town housing units reported in 2000, 72, or 14%, were manufactured homes.) The Brunswick County municipality with the highest percentage of single-family homes is Carolina Shores (96.8%). The lowest percentage of single-family homes is found in Sandy Creek (25.5%). The second from the lowest is Caswell Beach (at 43.7%). In Brunswick County as a whole 55.7% of housing is in single/detached units. In North Carolina, the figure is 64.4%.

The median value of owner occupied housing in the town of Calabash is \$107,400. This is the 15<sup>th</sup> highest value among Brunswick County municipalities. The Brunswick County median value for owner occupied housing is \$127,400. The NC value in this category is \$108,300. The highest median value for owner occupied housing in Brunswick County was reported at Bald Head Island (\$525,000). The second highest was at St. James (\$298,200). The lowest median value of owner occupied housing was found at Navassa (\$62,700).

This section on key characteristics tells us the following about the Town of Calabash:

1) This is a community which has a relatively higher median age than most other Brunswick County municipalities. The median age in Calabash is also higher than the median age for North Carolina as a whole. The age of the population has a lot to do with the fact that many people of retirement age find southeastern North Carolina and the Town of Calabash a popular place to retire. The affordability of the Town contributes to this in-migration.

2) The Town of Calabash has a relatively high percentage of its housing occupied year 'round. This gives credence to the fact that Calabash is a working community. This is not a resort Town which has a large percentage of its housing vacant during the winter months. In this way, the Town of Calabash is different than the surrounding barrier island resort areas.

3) When compared to other barrier island beach municipalities this Town has a higher percentage of the population above 16 years of age in the labor force. Calabash may have a higher median age, but they are working.

4) The income figures (median household/median family/per capita) for the community are in the mid range for Brunswick County and are slightly lower than the NC median family and median household income, though Calabash has a higher per capita income than NC as a whole.

5) Most of the housing stock in Calabash is single family residential (56.5%). In Calabash, compared to northern Brunswick County municipalities, there are relatively few manufactured homes. Also, in Calabash, from analysis of the percentages, there are more condominiums and multi-family dwellings here than as compared with the overall County housing stock.

6) Calabash is affordable as the value of owner occupied housing units in the Town of Calabash is relatively low when compared to prices in the area.

#### **(5) Age of Population**

The age of the population within a municipality is regularly checked with each decennial census. The most recent U.S. Bureau of the Census report, as of this writing, is for the year 2000. The estimated population of Calabash in 2000, according to the U.S. Bureau of the Census, was 711. The most recent population estimate currently available is based upon the U.S. Census report but also takes into account natural growth, growth by annexations, and growth by migration (in or out) over the intervening period of time. The 2003 estimate of population for Calabash is 1,346. This is an 87% increase (623 persons) over a three-year period. Most of this growth is due to annexation.

Though it is true that areas annexed may have special characteristics, and there may be a large number of elderly people, or, perhaps a large number of young people, in a particular subdivision or area annexed, it is assumed for purposes of examining age, that the percentages will hold true and that the number of persons within each age category, as a percentage within the municipality, will not drastically change due to this growth. Without this assumption we could not give you a breakdown of the age of the current municipal population. It should be recognized, however, this is an estimate and we are discussing this estimate here as a part of our requirement to address the age of the population in our Land Use Plan.<sup>8</sup>

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<sup>8</sup> The NC Coastal Resources Commission requires this data with their "land use planning guidelines." The requirement may be located in the NC Administrative Code with this reference @ 15A NCAC 7B .0702(c)(1)(A)(iv).

### Calabash – Age & Sex – 2000 & 2003<sup>9</sup>

Total Population	Year '00/Number & Percent		Year '03/Number & Percent	
	711	= 100%	1,334	= 100%
	Year '00/Number & Percent		Year '03/Number & Percent	
Male	343	= 48.2%	643	= 48.2%
Female	368	= 51.8%	691	= 51.8%
Under 5 years	22	= 3.1%	41	= 3.1%
5-9 years	19	= 2.7%	36	= 2.7%
10-14 years	20	= 2.8%	37	= 2.8%
15-19 years	13	= 1.8%	24	= 1.8%
20-24 years	27	= 3.8%	51	= 3.8%
25-34 years	72	= 10.1%	135	= 10.1%
35-44 years	66	= 9.3%	124	= 9.3%
45-54 years	71	= 10.0%	133	= 10.0%
55-59 years	69	= 9.7%	129	= 9.7%
60-64 years	71	= 10.0%	133	= 10.0%
65-74 years	174	= 24.5%	327	= 24.5%
75-84 years	75	= 10.5%	140	= 10.5%
85 years & over	12	= 1.7%	23	= 1.7%

The 1990 U.S. Bureau of the Census reported 42% of the Calabash population was 65 and over while only 5.6% were less than 18 years of age<sup>10</sup>. The 2000 Census reported 36.7% were 65 and over and 10.4% were less than 19 years of age. The population of Calabash (according to the change in these age groups) from the year 1990 to the year 2000 grew younger. The difference reflects a change in the long-term trend which is believed to be due to the growth in population due to annexation.

The median age in the Town of Calabash in 2000 was 57.9 years.

### (6) Income

The decennial census is the best source for determining the income of individuals within a municipality. The latest information on the income of persons in Calabash was gathered by the U.S. Bureau of the Census in the year 2000. The income information gathered at that time was from the most recently completed calendar year. Therefore, the latest and best information available is for calendar year 1999.

Household income for 1999 in Calabash is shown below<sup>11</sup>.

<sup>9</sup> The numbers and percentages within this table are estimates and are based on the best information available.

<sup>10</sup> The 1990 population figures are quoted from a secondary source: Town of Calabash Amended 1994 Land Use Plan, adopted 4-11-2000.

<sup>11</sup> Income figures are reported as received from the U.S. Department of Commerce, Bureau of the Census, 2000.



**Calabash Households<sup>12</sup> Income — 353 total = 100%**

Less than \$10,000	— 25 = 7.1%
\$10,000 to \$14,999	— 23 = 6.5%
\$15,000 to \$24,999	— 65 = 18.4%
\$25,000 to \$34,999	— 75 = 21.2%
\$35,000 to \$49,999	— 79 = 22.4%
\$50,000 to \$74,999	— 62 = 17.6%
\$75,000 to \$99,999	— 10 = 2.8%
\$100,000 to \$149,999	— 6 = 1.7%
\$150,000 to \$199,999	— 6 = 1.7%
\$200,000 or more	— 2 = 0.6%

In the Town of Calabash the median household income in 1999 was \$32,946. This is a lower median household income than found in Brunswick County (\$35,888) as a whole or as is found statewide (\$39,184). The number of Calabash households with income was 248. The mean earnings of households with income in Calabash in 1999 was \$38,092. The mean earnings of households with income in Brunswick County was a bit higher at \$43,808. The mean earnings of households with income in North Carolina in 1999 was \$50,814. The number of households in Calabash with social security income was 179. The average amount of social security income per household was \$13,464. The number of households in the Town of Calabash with public assistance income was 0 (0.0%). The average amount of public assistance income was \$0. The number of Calabash households with retirement income was 138. The average amount of retirement income received per household was \$16,628. In Brunswick County the mean retirement income was \$22,987. In all of North Carolina the mean retirement income reported was \$16,831.

Family income in Calabash for 1999 is shown below.

**Calabash Families<sup>13</sup> Income — 239 total = 100%**

Less than \$10,000	— 8 = 3.3%
\$10,000 to \$14,999	— 13 = 5.4%
\$15,000 to \$24,999	— 40 = 16.7%
\$25,000 to \$34,999	— 43 = 18%
\$35,000 to \$49,999	— 60 = 25.1%
\$50,000 to \$74,999	— 53 = 22.2%
\$75,000 to \$99,999	— 10 = 4.2%
\$100,000 to \$149,999	— 4 = 1.7%
\$150,000 to \$199,999	— 6 = 2.5%
\$200,000 or more	— 2 = 0.8%

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<sup>12</sup> According to the U.S. Department of Commerce, Bureau of the Census, 2000, the average household size in Calabash is 1.89 persons.

<sup>13</sup> According to the U.S. Dept of Commerce, Bureau of the Census, 2000, the average family size in Calabash is 2.32 persons.



The median family income in the Town of Calabash in 1999 was \$38,403. The median family income for Brunswick County during the same time period was \$42,037. The statewide median family income in 1999 was \$46,335. The 1999 per capita income in the Town of Calabash was \$22,975. The per capita income for Brunswick County was \$19,857. For all of North Carolina the per capita income for 1999 was \$20,307. The median earnings for male full-time year-round employees in 1999 in Calabash was \$27,202. The median earnings for female full-time year-round employees was \$25,368.

<b>Calabash Income</b>	<b>1989</b>	<b>1999</b>	<b>Percent Growth</b>
Median Income By Households	\$30,156	\$32,946	9.2%
Median Income By Families	\$33,071	\$38,403	16%
Per capita Income	\$16,040	\$22,975	43%

The table above, **Calabash Income**, shows incomes are growing in Calabash. The Town of Calabash is becoming more affluent. An affluent population is more able to buy or invest in real estate or luxury or comfort items.

<b>Poverty<sup>14</sup> Status '99<sup>15</sup></b>	<b>Number<sup>16</sup> &amp; %</b>	<b>Bruns. Co %</b>	<b>NC %</b>
<b>Families</b>	13 - 5.4%	9.5%	9.0%
Families w/ related children under 18 years	7 - 13.2%	16%	13.3%
Families w/ related children under 5 years	0 - 0.0%	21.7%	16.5%
<b>Families w/ female householder, w/ no husband present</b>	3 - 12.5%	34.2%	27.4%
With related children under 18 years	3 - 21.4%	43.4%	34.3%
With related children under 5 years	0 - 0.0%	61.7%	45.9%
<b>Individuals</b>	67 - 9.3%	12.6%	12.3%
18 years and over	56 - 9.0%	10.6%	11.0%
65 years and over	3 - 1.3%	8.1%	13.2%

<sup>14</sup> Poverty is based on income, household size and relationship. Income considered for determining poverty is money income before taxes. Capital gains and noncash benefits, such as food stamps or medicaid, are not counted as income. The population considered for determining poverty is not the total population of an area. Persons living in group quarters, such as military barracks, college dorms, or long-term health care facilities, are not considered when determining poverty. Unrelated persons under the age of 15 in a household, such as foster children, are also not considered when determining poverty.

<sup>15</sup> U.S. Department of Commerce, Bureau of the Census, 2000

<sup>16</sup> Indicates the number below the poverty level in each category.

It is important to note that due to the small number of persons in Calabash the numbers and the percentages created with them can change dramatically for poverty as well as income with a relatively slight shift.

For the year 1999, the Town of Calabash ranks above the entirety of Brunswick County and above the State in per capita income.

2000 Calabash per capita income = \$22,975	1990 Calabash per capita income <sup>17</sup> = \$16,040
2000 Brunswick Co per capita income = \$19,857	1990 Brunswick Co per capita income = \$11,688
2000 NC per capita income = \$20,307	1990 NC per capita income = \$12,885

## B. Housing Stock

Community housing gives important indicators for land use planning. Most importantly it gives a picture of the type (variety) of housing opportunity currently existing, as well as an indication of what the dominant housing types will be in the future if current trends continue. Density and other factors will be examined in another section of this plan.

### (1) Current Housing Stock

According to the U.S. Bureau of the Census, Census 2000, there were 519 total housing units in Calabash<sup>18</sup>. Since that time, according to the records of the Building Inspector for the years 2000 through 2003, 46 single family residences and 12 mobile or manufactured homes have been added to the total. This gives a new total of 577 housing units for the end of the calendar year 2003. This total does not include new residences in Town due to annexations during this same period of time. Only 2 of the total housing units in Calabash in 2000 were reported to lack complete plumbing facilities and none were reported to lack complete kitchen facilities. Of the 519 total housing units reported by the 2000 Census 19 reported no telephone service.

A description of the number and type of units in Calabash in 2000 is shown below.

<b><u>Calabash Housing 2000/Units in the Structure</u></b>	<b><u>Number</u></b>	<b><u>Percent</u></b>
1-unit, detached	293	56.5%
1-unit, attached	6	1.2%
2 units	2	0.4%
3 or 4 units	5	1.0%
5 to 9 units	28	5.4%
10 to 19 units	13	2.5%
20 or more units	100	19.3%
Mobile home	72	13.9%
Boat, RV, van, etc.	0	0.0%
<b><u>TOTAL</u></b>	<b><u>519</u></b>	<b><u>100%</u></b>

<sup>17</sup> The 1990 income figures are quoted from a secondary source: Town of Calabash Amended 1994 Land Use Plan, adopted 4-11-2000.

<sup>18</sup> The 2000 count by the Bureau of the Census is the latest detailed summary of this information.

Calabash and Brunswick County have a relatively high percentage number of mobile homes within their jurisdiction.

**Number of Manufactured Homes & Percentage of Total Housing Stock by Jurisdiction<sup>19</sup>**

<u><b>Calabash</b></u> <u>72 of 519 = 13.9%</u>	<u><b>Brunswick County</b></u> <u>18,458 of 51,431 = 35.9%</u>	<u><b>North Carolina</b></u> <u>577,323 of 3,523,944 = 16.4%</u>
<u><b>Bald Head Island</b></u> <u>0 of 591 = 0.0%</u>	<u><b>Belville</b></u> <u>23 of 115 = 20%</u>	<u><b>Boiling Spring Lakes</b></u> <u>456 of 1,403 = 32.5%</u>
<u><b>Bolivia</b></u> <u>15 of 71 = 21.1%</u>	<u><b>Carolina Shores</b></u> <u>2 of 844 = 0.2%</u>	<u><b>Caswell Beach</b></u> <u>2 of 575 = 0.3%</u>
<u><b>Holden Beach</b></u> 0 of <u>2,043 = 0.0%</u>	<u><b>Leland</b></u> <u>369 of 904 = 40.8%</u>	<u><b>Navassa</b></u> <u>71 of 185 = 38.3%</u>
<u><b>Northwest</b></u> <u>140 of 303 = 46.2%</u>	<u><b>Oak Island</b></u> <u>764 of 6,662 = 11.4%</u>	<u><b>Ocean Isle Beach</b></u> <u>2 of 2,515 = 0.3%</u>
<u><b>St. James</b></u> <u>0 of 593 = 0.0%</u>	<u><b>Sandy Creek</b></u> <u>74 of 102 = 72.5%</u>	<u><b>Shallotte</b></u> <u>37 of 600 = 6.1%</u>
<u><b>Southport</b></u> <u>8 of 1,308 = 0.6%</u>	<u><b>Sunset Beach</b></u> <u>623 of 3,072 = 20.2%</u>	<u><b>Varnumtown</b></u> <u>39 of 245 = 15.9%</u>

There is a relatively small percentage of the housing in the Town of Calabash in manufactured homes. According to recent records from the Town of Calabash Inspections Department, there are more manufactured homes in the extraterritorial jurisdiction than in-Town. This is believed to be the result (primarily) of the close proximity of vacation beaches and the relatively inexpensive property in Calabash. The generally less expensive manufactured home is an attractive alternative housing choice.

The age of the houses in Calabash are shown in the table below.

<u><b>Calabash Housing/Year Structure Built</b></u>	<u><b>Number</b></u>	<u><b>Percent</b></u>
1999 to March 2000	2	0.4%
1995 to 1998	61	11.8%
1990 to 1994	127	24.5%
1980 to 1989	246	47.4%
1970 to 1979	32	6.2%
1960 to 1969	31	6.0%
1940 to 1959	20	3.9%
1939 or earlier	0	0.0%

<sup>19</sup> U.S. Department of Commerce, Bureau of the Census, 2000. See Appendix for a Table further supporting this information.

The total number of occupied housing units in year-round occupation, as reported by the Census Bureau in the year 2000 was 376<sup>20</sup>. Another way of saying this is that the permanent population at Calabash occupies 72% of the total housing units. (Total housing units = 519, and total occupied housing units = 376.) This leaves a difference of 143 housing units which are occupied seasonally or not at all. Seasonal occupation of these residential units generally brings more people per dwelling into Town than the permanent resident population. To give a comparison, in Brunswick County there are a total of 30,438 occupied housing units. The total number of housing units in Brunswick County is 51,431. 59% of the total number of housing units in Brunswick County are occupied. In North Carolina, 89% of the housing units are occupied.

More than 84% of the housing in Calabash has been built since 1980. For the entire State, the percentage of homes built since 1980 is 47%. This is not surprising as we consider recent hurricane events and especially the continuing surge in the population of Brunswick County and the accompanying growth which has occurred in Calabash over the last two decades.

Of the owner occupied homes in Calabash, 90% are valued at less than \$150,000. In North Carolina 74% of the owner occupied homes are of this value. In Brunswick County, the percentage is 62%.

The value of owner occupied housing is as follows:

<b><u>Calabash Housing/Value<sup>21</sup></u></b>	<b><u>Number</u></b>	<b><u>Percent</u></b>
Less than \$50,000	8	3.6%
\$50,000 to \$99,999	76	34.4%
\$100,000 to \$149,000	116	52.5%
\$150,000 to \$199,999	7	3.2%
\$200,000 to \$299,999	12	5.4%
\$300,000 to \$499,999	2	0.9%
\$500,000 to \$999,999	0	0%
\$1,000,000 or more	0	0%
<b><u>TOTAL</u></b>	<b><u>221</u></b>	<b><u>100%</u></b>

The median value of owner occupied housing units in Calabash (\$107,400) is less than the value of owner occupied housing in Brunswick County (\$127,400), and slightly less than in North Carolina as a whole (\$108,300).

<sup>20</sup> The 376 occupied housing units are those units occupied year-round.

<sup>21</sup> Of the 519 occupied housing units in Calabash, 221 of them are owner occupied. This table gives the value of the 221 owner occupied units.



## (2) Building Permits Issued

The table below, prepared by the Town of Calabash, gives a complete summary of building permit activity in Calabash since 1994.

### Building Permits Issued – Town of Calabash – January 1994–December 2003<sup>22</sup>

<u>Year Issued</u>	<u>Single Family</u>	<u>Mob/Mfg Homes</u>	<u>Multi-Family</u>	<u>Commercial</u>
	<u>In Town – ETJ</u>	<u>In Town – ETJ</u>	<u>In Town – ETJ</u>	<u>In Town</u>
1994	33 — 50	2 — 35	0 — 0	0
1995	32 — 39	0 — 47	0 — 0	0
1996	20 — 39	0 — 59	0 — 0	0
1997	26 — 15	4 — 60	0 — 0	0
1998	20 — 29	1 — 49	0 — 0	0
1999	13 — 14	0 — 50	0 — 0	0
2000	10 — 15	0 — 41	0 — 0	0
2001	14 — 3	0 — 41	0 — 0	0
2002	19 — 4	3 — 12	0 — 1 (4 unit)	1
2003	3 — 5	9 — 4	1 (5 unit) — 0	2
TOTALS	190 — 213	19 — 398	1 (5 unit) - 1 (4 unit)	3

## C. Local Economy

Trends in the local economy are directly tied to changes in the planning area's population. People move into a growing area to accept jobs. Children, upon reaching maturity, stay in the area if jobs are available. And, as is also understood, people also leave areas due to changes in employment. As the population in Calabash, and all of southeastern Brunswick County, continues to grow for the foreseeable future, additional infrastructure needs and environmentally sensitive planning will be needed to preserve the attributes that have made Calabash a desirable tourist destination and place to live.

<sup>22</sup> This information was received from the Town of Calabash in October 2004.

### (1) Employment By Major Sectors

The best information regarding local employment is offered every 10 years by the U.S. Department of Commerce, Bureau of the Census. The tables below, showing occupation and employment by industry were gathered from the 2000 census.

The total number of persons reported as employed in the civilian population, 16 years of age and over, in 2000 was 338. The occupation of these individuals is shown below.

<b>Calabash Occupations, 2000 .....</b>	<b>Number - Percent</b>
-Management, professional, and related occupations .....	78 --- 23.1%
-Service occupations .....	82 --- 24.3%
-Sales and office occupations .....	89 --- 26.3%
-Farming, fishing, and forestry occupations.....	4 --- 1.2%
-Construction, extraction, and maintenance occupations .....	56 --- 16.6%
-Production, transportation, and material moving occupations .....	29 --- 8.6%

In 1990 there were 273 persons employed in the civilian labor force (16 years and above). As mentioned previously, in the 2000 census this number had grown to 338 persons in the civilian labor force (16 years and older). The growth rate for the labor force during this 10-year period of time was 23.8%. The number of persons working in Calabash increased even as the population, which was effected by annexations for the census count, was in decline. The largest numerical increase in number of jobs reported to the U.S. Census Bureau were in the managerial and professional occupations and in the service industry occupations. There were more people making a living in farming, fishing, and forestry occupations in Calabash in 1990 than in 2000.

In the census category of employment by industry there were more people making a living in Calabash in arts, entertainment, recreation, accommodation and food services industry than in any other. 29% of the workforce was employed in this area. This is consistent with Calabash's reputation and identity as the "Seafood Capitol of the World."

<b>Calabash Employment by Industry, 2000.....</b>	<b>Number - Percent</b>
-Agriculture, forestry, fishing and hunting, and mining .....	6 --- 1.8%
-Construction.....	51 -- 15.1%
-Manufacturing.....	13 --- 3.8%
-Wholesale trade.....	0 ---- 0%
-Retail trade .....	63 -- 18.6%
-Transportation and warehousing, and utilities.....	6 --- 18%
-Information .....	3 --- 0.9%
-Finance, insurance, real estate, and rental and leasing .....	15 --- 4.4%
-Professional, scientific, management, administrative, and waste mgmt.....	37 -- 10.9%
-Educational, health and social services.....	30 --- 8.9%
-Arts, entertainment, recreation, accommodation and food services .....	98-- 29.0%
-Other services (except public administration) .....	8 -- 2.4%
-Public administration .....	8 -- 2.4%

The census 2000 also reported a large number of persons employed in the retail trade industry. These people are the owners and operators of the small shops and other businesses which serve the many day visitors to Calabash. As is consistent with the growing population of Brunswick County and the area at large, there were a high number of respondents to the 2000 census which indicated they were working in the construction industry.

## **(2) Unemployment**

The NC Employment Security Commission, in cooperation with the U.S. Bureau of Labor Statistics and the U.S. Department of Commerce, provides unemployment rate percentages for each County in North Carolina and for cities with population in excess of 25,000 persons. The unemployment rates for Brunswick County are shown below for 1990, 2000, and for September of 2004. Land use plan readers are advised not to make too much of these percentages relative to the situation in the Town of Calabash. The referenced web sites will provide good information for additional research on this topic.

Brunswick County unemployment rate 1990 = 6.2% avg. rate for the year.  
Brunswick County unemployment rate 2000 = 4.6% avg. rate for the year.  
Brunswick County unemployment rate for Sept 2004 = 3.4%.

Labor market info can be found at:

<http://www.ncesc.com/>

<http://www.bls.gov/lau/home.htm>

## **(3) Description of Community Economic Activity**

The basis for the Town of Calabash economy is the restaurant trade for which Calabash is famous. Also important as a part of the basis for the Calabash economy is the fishing fleet. Local head boats provide fishing opportunity for visitors. Local fishermen, who fish the area waters to supply local restaurants, are also important to Calabash's economy. Both of these groups are docked along the Calabash waterfront on the Calabash River.

Locals and visitors are clients of the numerous retail shops in Calabash. The visitors, for the most part, first came to know of Calabash due to the top restaurants, and now return for more fun at the restaurants and for shopping opportunity. Often people stop to shop in Calabash when traveling between Wilmington and Myrtle Beach. (Locals seem to agree that on a day-to-day basis more of the business clientele in Calabash comes from the south (Myrtle Beach) rather than from the north (Wilmington). Though there have been no conclusive studies which would prove this sentiment.)

The Town of Calabash also serves the surrounding area as a place to shop. A large percentage of the population of Calabash is of retirement age. (Nearly 37% of Calabash residents in 2000 were 60 years of age or older.) These residents are looking for convenience and a quiet place to live. This other aspect of the economic life of Calabash, a quiet, residential, bedroom community, is also quite apparent and attractive. Most of the residents, in fact, like Calabash as it is. The sentiment on growth, generally, is that the same mix of commercial activities should be offered as has been offered in the past.

The number of privilege licenses issued in the Town of Calabash in the last five years shows the level of businesses in Calabash is increasing.

**Privilege Licenses Issued, FY (ending) 2000 – 2004<sup>23</sup>**

<u>1999/2000</u>	<u>2000/2001</u>	<u>2001/2002</u>	<u>2002/2003</u>	<u>2003/2004</u>
175	148	173	189	247

There are currently no land use compatibility problems in Calabash caused by heavy commercial or industrial uses. The residential areas are not disturbed by the businesses. Redevelopment of some of the business areas to provide ease of access is an issue. Heightening use of the waterfront will bring this issue to the forefront in the coming years.

Economic, social and environmental factors must all be taken into account in a balanced way when making any important decision about the community's future. Any city which exclusively focuses on one of these components without regard to the others will almost certainly end up with a very unlivable community. A healthy economy depends upon a healthy environment. But, likewise, a protected environment in the future will depend on a healthy economy to pay for it.

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<sup>23</sup> This information was received from the Town of Calabash Department of Administration, October 2004.



### **Section 3: Natural Systems Analysis**

#### **A. Description and Analysis of Natural Features and Environmental Conditions of Calabash's Planning Jurisdiction**

This section on natural systems analysis gives an inventory and a discussion of various categories of natural features and an interpretation of the capabilities or limitations these features have for development in Calabash. The features which will be highlighted are: Areas of Environmental Concern (AECs), soil characteristics, water quality classifications, shellfish growing areas and primary nursery areas, flood hazard areas and other natural hazard areas, storm surge areas, non-coastal wetlands (probable 404 wetlands), water supply watersheds and wellhead protection areas, and environmentally fragile areas. The table below and maps in the appendix show the amount and location of natural system features in the planning jurisdiction.

##### **(1) Areas of Environmental Concern**

One of the basic purposes of North Carolina's Coastal Area Management Act (CAMA) is to establish a State management plan which is capable of sustainable and coordinated management of coastal resources. The Act recognizes the key to more effective protection and use of the land and water resources of the coast is the development of a coordinated approach to resources management. CAMA provides 2 principle mechanisms for accomplishing this purpose. First, the formulation of local Land Use Plans articulating the objectives of local citizens and translating these objectives, or policies, into future desired growth patterns. Second, the designation of Areas of Environmental Concern for the protection of areas of statewide concern within the coastal area.

Both the development of local Land Use Plans and the designation and regulation of critical resource areas contribute to rational management by encouraging local and State governments to exercise their full authorities over coastal resources and to express their management goals in a comprehensive and uniform manner. Local objectives benefit through their incorporation into a State management scheme, and the statewide objectives of resource protection and development benefit through an integrated and comprehensive management approach. State guidelines are prepared to ensure uniformity and consistency in Land Use Plans and in the regulation of critical resource areas, or Areas of Environmental Concern (AECs).

The STATE GUIDELINES FOR AREAS OF ENVIRONMENTAL CONCERN<sup>24</sup> (Subchapter 7H of Chapter 15A of the NC Administrative Code, or 15A NCAC 7H, or the regulations governing development activity in AECs) require that local Land Use Plans give special attention to the protection and appropriate development of AECs. CAMA charges the Coastal Resources Commission (CRC) with the responsibility for identifying types of areas -- water as well as land -- in which uncontrolled or incompatible development might result in irreversible damage. The Act further instructs the CRC to determine what types of development activities are appropriate within such areas, and it calls upon the local government to give special attention to these areas in the process of Land Use Plan development.

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<sup>24</sup> These regulations are subject to change by the Coastal Resources Commission.

As mentioned earlier, CAMA divides responsibility for the permitting program between the CRC and local governments. "Minor" development activities may receive permits from a local permit officer, also known as the LPO, while "major" development activities seek permits from the CRC. (Division of Coastal Management personnel are the staff representatives of the CRC.)

The types of AECs defined by the Coastal Resources Commission and the NC Administrative Code are separated into 4 broad groupings. Those 4 categories are:

- **THE ESTUARINE SYSTEM**
- **OCEAN HAZARD AREAS**
- **PUBLIC WATER SUPPLIES**
- **NATURAL AND CULTURAL RESOURCE AREAS**

**a. The Estuarine System**

Estuarine system AECs, which are defined below, are land and water areas of the coast which contribute enormous economic, social, and biological values to North Carolina. It is the objective of the CRC to manage these AECs as an interrelated group to ensure that development is compatible with natural characteristics and to minimize the likelihood of significant loss of private property and public resources. Included within the estuarine system are the following AEC categories: estuarine waters, coastal wetlands, public trust areas and estuarine shorelines. Each of these AECs is either geographically within the estuary or, because of its location and nature, may significantly affect the estuary.

**Coastal Wetlands**<sup>25</sup> are areas of salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides. The management objective of the NC CRC for coastal wetlands is to conserve and manage these areas so as to safeguard and perpetuate their biological, social, economic, and aesthetic values. The highest priority is given to conservation of these areas. The second highest priority of use is for those types of development which require water access and cannot function elsewhere.

There are 70 acres of coastal wetlands within the Calabash corporate limit and 95 acres of coastal wetlands with the Town of Calabash ETJ.

**Estuarine Waters** are those water areas which are the dominant component and bonding element of the entire estuarine system, integrating the aquatic influences from the land and the sea. Estuaries are among the most productive natural environments of North Carolina. They support the valuable commercial and sports fisheries of the coastal area, which are comprised of estuarine dependant species such as menhaden, flounder, shrimp, crabs, and oysters. Of the 10 leading species in the commercial catch, all but one are dependent on the estuary. The waters of the Calabash River and the Intracoastal Waterway are classified as estuarine waters.

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<sup>25</sup> Coastal wetlands are an Area of Environmental Concern and uses/development in these areas are regulated by the NC Coastal Resources Commission. Coastal wetlands should not be confused with 404 wetlands, which are regulated by the U.S. Army Corps of Engineers.

There are 56 acres of estuarine waters within the Calabash corporate limit and 60 acres of estuarine waters with the Town of Calabash ETJ.

**Public Trust Areas** are all waters of the Atlantic Ocean and the lands thereunder from the mean high water mark to the seaward limit of State jurisdiction (the State limit of jurisdiction is 3 miles); all navigable natural bodies of water and lands thereunder to the mean high water level; all water in artificially created bodies of water containing significant public fishing resources or other public resources which are accessible to the public by navigation from bodies of water in which the public has rights of navigation; and all waters in artificially created bodies of water in which the public has acquired rights by prescription, custom, usage, dedication, or any other means. The management objective is to protect public rights for navigation and recreation and to conserve and manage public trust areas so as to safeguard their biological, economic, and aesthetic values. The waters of the Calabash River and the waters of Intracoastal Waterway are public trust waters. There is no land in public trust within Calabash or the Calabash ETJ.

**Estuarine Shorelines** are areas of dry land (which may contain 404 wetlands) which are considered a component of the estuarine system because of the close association these land areas have with adjacent estuarine waters. Estuarine shorelines are non-ocean shorelines which are especially vulnerable to erosion, flooding, or other adverse affects of wind and water and which are intimately connected to the estuary. This area extends from the mean high water level (or normal water level along estuaries, sounds, bays, and brackish waters) for a distance of 75 feet landward. Within the estuarine shoreline AEC, impervious surfaces are required to not exceed 30%. The estuarine shoreline areas within the Town of Calabash are all of those areas landward of mean high water which are located along the Calabash River and area tidal creeks and marshes.

There are 25 acres of estuarine shoreline within the Calabash corporate limit and 18 acres of estuarine shoreline within the Town of Calabash ETJ.

#### **b. Ocean Hazard Areas**

Ocean Hazard AECs are so named because these areas are considered by the North Carolina Coastal Resources Commission to be natural hazard areas along the Atlantic Ocean shoreline where, because of their special vulnerability to erosion or other adverse effects of sand, wind, and water, uncontrolled or incompatible development could unreasonably endanger life or property. Ocean hazard areas include: the ocean erodible area, the high hazard flood area, the inlet hazard area, and the unvegetated beach area.

**Ocean Erodible Areas** are areas where there is a substantial possibility of excessive erosion and significant shoreline fluctuation. The seaward boundary of this area is the mean low water line. The landward extent of this line is established by multiplying the long-term average annual erosion rate, as approved by the CRC, times 60, provided that, where there has been no long term erosion rate or the rate is less than 2 feet per year, the minimum distance shall be set at 120 feet from the first line of stable vegetation.

**High Hazard Flood Areas** are those areas subject to velocity waters in a storm having a 1 percent chance of being equaled or exceeded in any given year and as identified on the National



Flood Insurance Program's Flood Insurance Rate Maps. The maps are produced by the Federal Emergency Management Agency.

**Inlet Hazard Areas** are natural hazard areas which are especially vulnerable to erosion, flooding and other adverse effects of sand, wind, and water because of their proximity to dynamic ocean inlets. This area extends landward from the mean low water line a distance sufficient to encompass that area within which the inlet will, based on statistical analysis, migrate, and shall consider such factors as previous inlet territory, structurally weak areas near the inlet, and external influences such as jetties and channelization.

**Unvegetated Beach Areas** are self explanatory to the extent that they consist of unvegetated ocean beach. These areas are subject to rapid and unpredictable land form change from wind and wave action.

There are no ocean hazard AEC areas within the Town of Calabash's planning jurisdiction.

**c. Public Water Supplies**

The third broad grouping of AECs includes valuable small surface supply watersheds and public water supply well fields. These vulnerable, critical water supplies, if degraded, could adversely affect public health or require substantial monetary outlays by affected communities for alternative water source development. For more details, interested parties are advised to call the North Carolina Division of Coastal Management, in Raleigh, at (919) 733-2293.

There are no public water supply AEC's within the planning jurisdiction of the Town of Calabash.

**d. Natural and Cultural Resource Areas**

Natural and cultural resource areas include natural or cultural resources of more than local significance in which uncontrolled or incompatible development could result in major or irreversible damage to natural systems or cultural resources, scientific, educational, or associative values, or aesthetic qualities. These areas would include coastal areas containing remnant species, coastal complex natural areas, unique coastal geologic formations, significant coastal archaeological resources, and significant coastal historic/architectural resources. For more details, interested parties are advised to call the North Carolina Division of Coastal Management, in Raleigh, at (919) 733-2293. This category of AEC is by nomination only.

No nomination category AECs exist or are expected to be nominated in Calabash during the planning period.

**(2) Soil Characteristics**

In November 1986, the US Department of Agriculture, Soil Conservation Service, in cooperation with the NC Agricultural Experiment Station and the Brunswick County Board of Commissioners, published a **Soil Survey of Brunswick County, North Carolina**<sup>26</sup>.

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<sup>26</sup> For more detailed information, the Land Use Plan reader is advised to consult this text.



The **GENERAL SOIL MAP** contained in the Soil Survey document shows the Town of Calabash as primarily within the Kureb-Wando soil association. These soils are nearly level to sloping, excessively drained soils that are sandy throughout; on uplands. These soils are mainly in the southern part of the County. Typically, mapped areas of the Kureb-Wando soil association are long and narrow. This soil association composes approximately 8% of the County soils. In Brunswick County it is about 37% Kureb soils, 18% Wando soils, and 45% soils of minor extent. High seepage rates, caving of cutbacks, poor traction, and drought main limitations for Kureb-Wando soils.

The reason that soil types are important for land use planning purposes is that some soils are not well suited for a particular type of development. Soils may present hazards for building foundations. They may be poorly drained and have limited ability, if any, to support septic systems. If this type of information is considered when the Town produces a set of regulations, such as a Zoning Ordinance, development may be steered toward those areas where it is most suitable.

Some determination of the soil types within the Town of Calabash's planning jurisdiction is possible to distinguish from the aerial photography contained in the Soil Survey of Brunswick County. The types of soils shown are:

Baymeade fine sand (BaB) This well drained soil is on low ridges and convex divides. Most of the acreage of this soil in Brunswick County is used for woodland. Individual areas of this soil are generally broad and long and range from 35 to 250 acres. Surface runoff is slow. Many areas of this soil are used for crops. The soil is suited to some urban uses. Lawns and shrubs are difficult to establish and maintain. The sandy nature of this soil is the main limitation. This soil is poorly suited for recreation purposes.

Blanton fine sand (BnB) This moderately well drained soil is found in slightly convex interstream areas. Most of the acreage of this soil in Brunswick County is woodland. The rest is idle or used for residential development. Individual areas of this soil are usually long and irregular in width and range from 15 to 175 acres. Surface runoff is slow. Permeability is rapid. A few areas of this soil in Brunswick County are used for crops. This soil is suitable for most urban uses.

Bohicket silty clay loam (BO) This nearly level, very poorly drained soil is on tidal flats at elevations of 0 to 3 feet above sea level. It is dissected by narrow areas of water. Surface runoff is very slow. Permeability is very slow. Bohicket soil has native vegetation adapted to tidal areas, such as marsh. This soil is generally not used for forestry, cropland, or residential sites. Daily tidal flooding, wetness, and excess salt are the main limitations.

Foreston loamy fine sand (Fo) This nearly level, moderately well drained soil is on slightly convex interstream areas. Most of the acreage of this soil in Brunswick County is in woodland. The rest is in crop land. Individual areas of this soil are irregular in shape and are 25 to 150 acres. Surface runoff is slow. Permeability is moderately rapid, and the available water capacity is moderate. Ditch banks and trench walls cave, and the soil has a high seepage rate. Wetness from a seasonal high water table is the main limitation. The soil is suited for most urban uses. A

well planned drainage system can control wetness. This soil is poorly suited for sanitary facilities. The soil is well suited for recreational purposes.

Goldsboro fine sandy loam (GoA) This moderately well drained soil is located near drainageways on interstream divides. About one-half of the acreage is in woodland; the rest is in cropland. Surface runoff is slow. Permeability is moderate, and the available water capacity is moderate. Wetness from a seasonal high water table is the main limitation. A well planned and constructed drainage system helps control wetness. Goldsboro soil is generally suited to urban and recreational development.

Kureb fine sand (KrB) This excessively drained soil is in undulating areas. In Brunswick County nearly all the acreage of this soil type is in woodland. Surface runoff is slow. Permeability is rapid, and the available water capacity is very low. The barren areas of this soil are poor habitat for animals. Seedling mortality and difficulty using equipment on sand are the main limitations.

Leon fine sand (Lo) This nearly level, poorly drained soil is in broad smooth interstream area and in depressions in undulating areas. Surface runoff is slow. Permeability is rapid in the surface layer and moderate in the subsoil. This soil is mostly woodland in Brunswick County. This soil is generally not used for residential or recreational development because of wetness, seepage, the sandy nature of the soil, and the caving of cutbacks.

Lynchburg fine sandy loam (Ly) This nearly level, somewhat poorly drained soil is found in interstream areas. In Brunswick County, Lynchburg soil is usually found in woodland. Surface runoff is slow. Permeability is moderate. Corn, soybeans, and small grains are the only crops grown on Lynchburg soil. Without artificial drainage and land grading to improve surface runoff, Lynchburg soil is too wet for residential or recreational development.

Mandarin fine sand (Ma) This is a nearly level somewhat poorly drained soil in broad interstream areas and in depressions in undulating areas. Surface runoff is slow. Permeability is moderate to rapid, and the available water capacity is low. Mandarin soil is mostly in woodland in Brunswick County. This soil is poorly suited for residential or recreational development.

Muckalee loam (Mk) This nearly level, poorly drained soil is on flood plains of freshwater streams. Nearly all of the acreage of this soil type is woodland. Individual areas of this soil are long and narrow. Most of the mapped areas are from 10 to 100 acres. Surface runoff is very slow. Ditch banks cave because of high sand content. Muckalee soil is mostly in native woodlands. The vegetation is adapted to long periods of wetness. This soil is generally not used for crop land, or for residential or recreational development because of surface ponding, flooding, and caving of cutbacks.

Murville mucky fine sand (Mu) This nearly level, very poorly drained soil is in depressions in broad interstream areas. Surface runoff is very slow. These soils are generally not used for residential or recreational development. Surface ponding, high rates of seepage, and caving of cutbacks are the main limitations.

Pactolus fine sand (PaA) This soil type is moderately well drained and also somewhat poorly drained depending on the location. Surface runoff is slow. Permeability is rapid, and the available water capacity is low. A few areas of this soil are used for crop land in the County. This soil is poorly suited for residential and recreational development because of wetness, seepage, caving of cut banks, and the sandy nature of the soil.

Pantego mucky loam (Pn) These soils are nearly level and very poorly drained soils in broad interstream areas. Surface runoff is very slow. The soil is generally not used for residential or recreational development as a result of wetness and seepage.

Rains fine sandy loam (Ra) This nearly level, poorly drained soil is found on broad smooth interstream areas and in depressions on slightly convex divides. In Brunswick County, this soil is usually found in woodland with a small acreage in cropland. Surface runoff is low. Permeability as well as the available water capacity are moderate. Wetness is the main limitation. This soil is generally not used for residential or recreational development.

Torhunta mucky fine sandy loam (To) This nearly level, very poorly drained soil is found in broad interstream areas and on stream terraces. In Brunswick County, nearly all Torhunta mucky fine sandy loam is located in woodland areas. Surface runoff is very slow. The seasonal high water table is 0.5 foot to 1.5 feet below the surface, and water may pond during the wet season for brief periods. This soil is important as habitat for wildlife. Because of wetness, this soil is not used for recreational or residential development.

Wando fine sand (WaB) This excessively drained soil is on interstream areas. Some small areas are used for residential sites. A small acreage of this soil is used for crops. Use of cover crops helps control wind erosion and reduces leaching. This soil is suitable to most urban uses. It is poorly suited to sanitary facilities because of seepage and the caving of cutbacks.

Urban land (Ur) These soils are found in the developed portions of Calabash. Urban land is where soils have been cut, filled, graded, or paved so that most soil properties have been altered to the extent that a soil series is not recognized. These areas are used for developed type uses, which might include closely spaced housing, parking lots, and commercial development of a variety of types.

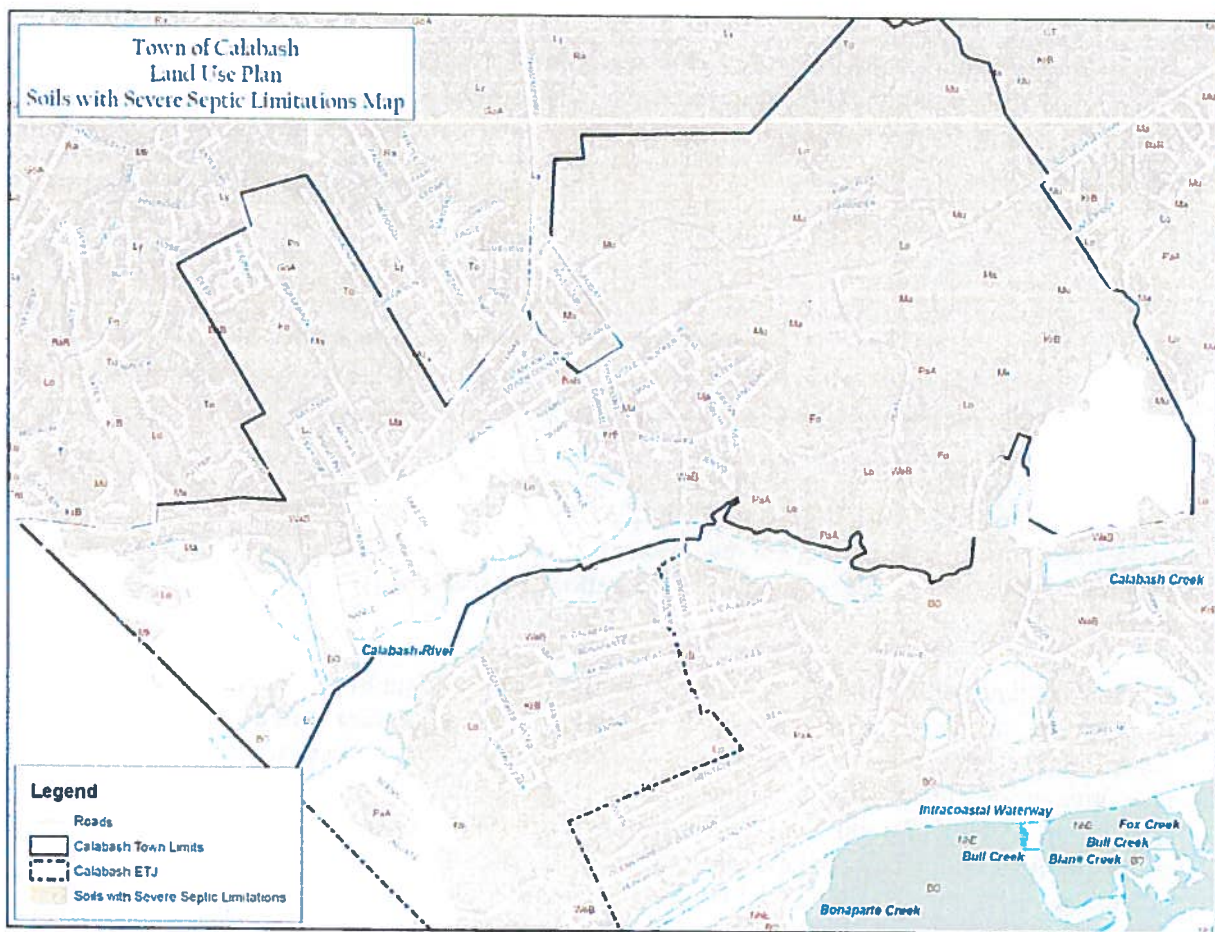
Of the soils listed above, Foreston loamy fine sand (Fo) is among those considered prime farm land. Soils considered "prime farm land" are soils which are the best suited for the production of food, feed, forage, fiber, and oilseed crops. These soils also have properties which favor the economic production of sustained high yield of crops. Prime farm land soils produce the highest yields with minimal inputs of energy and economic resources, and farming of these soils results in the least damage to the environment. These areas, because of rapid development, are a dwindling resource in Calabash and Brunswick County. The reason being is that those same properties which make this soil prime farmland also make these soils have a high potential for development and they are therefore considered some of the best building sites. Any of the soil limitations mentioned previously may be overcome through engineering. Appropriate considerations for Calabash are relative to zoning density, setback requirements, lot size, new streets and roads, and utilities extension plans and policies.



## Discussion of Soils with Septic System Limitations

The following map graphic shows the areas where soil characteristics present “severe limitations” to septic system use. In these areas (shaded brown on the map), larger septic percolation zones and lower density development is required for optimum septic system effectiveness. The Town of Calabash has realized the problems associated with soil septic limitations and has implemented a sewer system [see Section 7 (B)] in key residential areas in Town. While the Town has built sewer infrastructure, ultimate ownership and operation of the entire sewer system will be under Brunswick County. The Town is also working with Brunswick County to ensure other developed areas and future developments in Town are serviced by the County sewer system. Town policy is not to annex planned developments outside their jurisdiction unless those developments have secured sewer service from the County.

Map Graphic 1





### (3) Water Quality Classifications

As a strategy for the management of North Carolina's waters, the NC Division of Water Quality (NC DWQ) assigns classifications to water bodies. The primary classifications given our coastal waters are **SC**, **SB**, and **SA**. This classification scheme is based upon a graduated type scale whereby the NC DWQ assigns a classification based on the measured qualities of the water in each area. (The classification is based on the qualities of the water and does not refer to use. Though it is true that some uses, such as shellfishing, may not be allowed due to the classification.) Supplemental classifications designation (**HQW** – High Quality Waters, **ORW** — Outstanding Resource Waters, **Sw** — Swamp Waters, and **NSW** — Nutrient Sensitive Waters) is also done, as appropriate, as a means of specifying the properties of a water body which make it special. This is done so that these special properties, once recognized, may be preserved through planning.

According to the NC Division of Water Quality<sup>27</sup>, the waters of the Calabash River in Calabash are classified as **SA HQW** waters<sup>28</sup>. These waters are also primary nursery areas, as will be discussed in the following section.

Water quality designations for the waters of the Calabash River adjacent to and within the Town of Calabash and the Town's ETJ were originally made on December 1, 1963<sup>29</sup>. The designation has not changed since that date.

The water quality classifications for the Town of Calabash have been mapped and are shown on the Estuarine Waters & Coastal Wetlands Map (Map 5) in the Map Appendix.

#### **SA HQW Watersheds Acreage in Calabash & ETJ – 2004**

<b>Acres in Municipality</b>	<b>Acres in ETJ</b>	<b>Total Acres in Planning Jurisdiction</b>
846	715	1,561

Of the 2,480 acres (total) within the Town of Calabash's planning jurisdiction, 1,561 acres (or 63% drains to waters classified as SA HQW. This is a high percentage number for Calabash to consider in the formulation of land use plans, policies, and ordinances.

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<sup>27</sup> The NC Environmental Management Commission classifies waters for the NC Division of Water Quality (NC DWQ).

<sup>28</sup> The NC DWQ classifies waters for purposes of issuing discharge permits. The NC Division of Marine Fisheries establishes, administers and enforces rules governing commercial and recreational fishing in coastal waters, cultivation and harvesting of shellfish, and submerged land claims. The NC Shellfish Sanitation Branch classifies coastal waters relative to their quality and safety for harvesting shellfish, such as oysters and clams. The primary objective of the Branch is the protection of public health. The Branch works with the Division of Marine Fisheries to monitor and enforce water quality and use standards. The LUP reader should recognize that when the NC DWQ says that waters classified SA may be used for shellfishing, they also may **not** be used for shellfishing. Whether those waters are open to the taking of shellfish or not is a decision which is left to another agency.

<sup>29</sup> This information was received from Jeff Manning of the Planning Section, Division of Water Quality, NC DENR, in February 2005.

#### (4) Shellfish Growing Areas & Primary Nursery Areas

The marshes and estuaries along our coast serve as nursery grounds for 90 percent of our fisheries. North Carolina was the first state to designate nursery areas to protect these fragile ecosystems. The nursery system in North Carolina has served as a model for other states. According to this system there are three categories of nursery areas in our coastal waters:

- ~Primary Nursery Areas
- ~Secondary Nursery Areas
- ~Special Secondary Nursery Areas

The primary nursery areas within Calabash's planning jurisdiction are shown on the Land Use Plan Map entitled Significant Natural Heritage Area Map. The closed shellfishing areas are shown on the Closed Shellfish Harvesting Area Map. These maps are located in the appendix of this document.

Within the Calabash corporate limits there are 85 acres of closed shellfishing areas. Within the ETJ there are 107 acres closed for shellfishing. These areas are a part of the Calabash River within the ETJ and the Town limits. The entire Calabash River, in Town and in the ETJ, is closed to harvesting shellfish.

#### Closed Shellfishing Areas<sup>30</sup> – Calabash – 2004

Acres in Municipality	Acres in ETJ	Total Acres in Planning Jurisdiction
85	107	192

The proximity of development has caused the closure of the Calabash River to shellfishing. The water in the Calabash River is clean and is classified SA HQW.

#### a. Primary Nursery Areas

Primary Nursery Areas<sup>31</sup> are located in the upper portions of creeks, bays, and rivers. These areas are usually shallow with soft muddy bottoms and are surrounded by marshes and wetlands. The low salinity levels and the abundance of food in these areas make them ideal for young fish and shellfish.

To protect juvenile fish, many commercial fishing activities are prohibited in primary nursery areas; including the use of trawl nets, seine nets, dredges or any mechanical methods used for taking clams or oysters. If a violator is caught in a primary nursery area, he or she is faced with a very substantial penalty.

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<sup>30</sup> This information was received from the Division of Coastal Management, NC Department of Environment & Natural Resources. Calculations were made by Cape Fear Council of Governments.

<sup>31</sup> Classification as primary nursery area is done by the NC Marine Fisheries Commission. The staff arm of this agency is the Division of Marine Fisheries, in the NC Department of Environment & Natural Resources.

There are 80,144 acres in North Carolina which are designated as primary nursery areas. Of this acreage, 20 acres are within the Town of Calabash's planning jurisdiction. All waters of the upper reaches of the Calabash River are classified by the NC Division of Marine Fisheries as a primary nursery area (PNA). The 20-acre area consists of 8 acres of the Calabash River in Town and 1.5 acres in the ETJ, plus a 10-acre portion at Gause Landing.

**Primary Nursery Areas<sup>32</sup> – Calabash – 2004**

Acres in Municipality	Acres in ETJ	Total Acres in Planning Jurisdiction
8	12	20

**b. Secondary Nursery Areas**

Secondary Nursery Areas are located in the lower portions of creeks and bays. As they develop and grow, young fish and shellfish (primarily blue crabs and shrimp), move into these waters. Trawling is not allowed in the secondary nursery areas.

There are 35,502 acres in North Carolina which are designated as secondary nursery areas. There are no secondary nursery areas within the Town of Calabash's planning jurisdiction.

**c. Special Secondary Nursery Areas**

Special Secondary Nursery Areas are located adjacent to secondary nursery areas but closer to the open waters of our sounds and the ocean. For the majority of the year, when juvenile species are abundant, these waters are closed to trawling.

There are 31,362 acres in North Carolina which are designated as special secondary nursery areas. There are no special secondary nursery areas within the Town of Calabash's planning jurisdiction.

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<sup>32</sup> This information was received from the Division of Coastal Management, NC Department of Environment & Natural Resources. Calculations were made by Cape Fear Council of Governments.



## **(5) Flood Hazard Areas**

The Town of Calabash is a participating member of the National Flood Insurance Program<sup>33</sup> (NFIP). The Town has received and adopted the new FIRM maps as part of the North Carolina Floodplain Mapping Program. All property owners in Calabash are advised it is a good idea to purchase flood insurance and to protect themselves financially to the maximum extent possible from the threat of flood. In some cases the purchase of flood insurance will be required by lending institutions. Structures which are within the 100-year floodplain are shown on the Floodplain Map, which is located in the back of this document. The map is meant to give a generalized picture of those areas which may be threatened by flood. The Land Use Plan's Floodplain Map is not intended to replace the FIRMs, but should be considered as a general source for information.

According to the Federal Emergency Management Agency (FEMA), nearly 20,000 communities across the United States and its territories participate in the NFIP by adopting and enforcing floodplain management ordinances to reduce future flood damage. In exchange, the NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in these communities. Flood damage is reduced by nearly \$1 billion a year nationwide through partnerships with communities, the insurance industry, and the lending industry. Furthermore, buildings constructed in compliance with NFIP building standards suffer approximately 80 percent less damage annually than those not built in compliance. And, according to FEMA, every \$3 paid in flood insurance claims saves \$1 in disaster assistance payments.

To get secured financing to buy, build, or improve structures in Special Flood Hazard Areas (SFHAs) you will be required to purchase flood insurance. Lending institutions that are federally regulated or federally insured must determine if the structure is located in a SFHA and must provide written notice requiring flood insurance. Flood insurance is available to any property owner located in a community participating in the NFIP. All areas are susceptible to flooding, although to varying degrees, in fact, 25% of all flood claims occur in the low-to-moderate risk areas. Flooding can be caused by heavy rains, melting snow, by inadequate drainage systems, failed protective devices such as levees and dams, as well as by tropical storms and hurricanes. There's a big difference between having to buy flood insurance because the law says you must and choosing to buy flood coverage because it's in your best interests to do so. FEMA recommends that all property owners purchase and keep flood insurance because it is the best means of recovery from flood damages.

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<sup>33</sup> National Flood Insurance Program (NFIP) was established 1968. The NFIP is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the Federal Government. If a community adopts and enforces a floodplain management ordinance, the Federal Government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods.



### Calabash Flood Hazard Areas<sup>34</sup> – Acres & Percentage

	<u>Zone AE – %</u>	<u>Zone VE – %</u>	<u>Total Acres</u>
<b>Municipal Area</b>	243 – 14%	0 – 0%	1,680
<b>ETJ</b>	213 – 27%	14 – 2%	800
<b>Planning Jurisdiction</b>	456 – 18%	14 – .5%	2,480

Zones A and AE are both commonly referred to as the 100 year flood zone. (Zone A is the flood insurance rate zone that corresponds to the 1-percent annual chance floodplains that are determined in the Flood Insurance Study by approximate methods of analysis. Zone AE is the flood insurance rate zone that correspond to the 1-percent annual chance floodplains that are determined in the Flood Insurance Study by detailed methods of analysis. Zones V and VE are the flood insurance rate zone that corresponds to the 100-year coastal floodplains that have additional hazards associated with storm waves.) To discuss this program with a representative of the National Flood Insurance Program (NFIP) interested parties may call 1-800-638-6620.

#### (6) Storm Surge Areas

Storm surge is caused by water pushed toward the shore by the force of the winds swirling around a hurricane or low-pressure meteorological system. The advancing surge combines with the normal tides and the rains associated with the storm to create the hurricane storm tide (a.k.a., storm surge), which can increase the water level dramatically. The rise in water level can cause severe flooding, especially when the storm tide coincides with the normal high tides. Areas which may be subject to storm surge in Calabash are mapped as a part of this document. The map, entitled Storm Surge (Fast Moving) Inundation Map, is located in the back of this document.

Wind is the major determinant in the classification of a hurricane. Any tropical storm with sustained wind in excess of 74 mph is classified as a hurricane. Hurricanes are judged by their power according to a model known as the **Saffir-Simpson** scale. This measure of the power of a hurricane classes hurricanes according to a sliding scale from 1 to 5 (with category 5 storms as the most severe). Category 5 storms are rare.

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<sup>34</sup> This information was received from the Division of Coastal Management, NC Department of Environment & Natural Resources. Calculations were made by Cape Fear Council of Governments.

**Saffir-Simpson Scale<sup>35</sup>**

<b><u>Category</u></b>	<b><u>Max Sustained Wind Speed (MPH)</u></b>	<b><u>Max Surface Pressure (Millibars)</u></b>	<b><u>Storm Surge (Feet)</u></b>
1	74-95	Greater than 980	3-5
2	96-110	979-965	6-8
3	111-130	964-945	9-12
4	131-155	944-920	13-18
5	155+	Less than 920	19+

Calabash, because of its location, would feel and show the effects of the full brute force of a hurricane strike. While it is true that the friction or impact of the storm hitting land from the water causes dissipation of the full force of the storm, Calabash is close enough to the shore to feel the full effect. There is tremendous energy in these storms and damage can be severe. Possible damage includes: flooding, overturned mobile homes, downed power lines and damage to other public utilities, destroyed crops, fallen trees, and other severe effects. Calabash Town officials work closely with the Brunswick County Department of Emergency Management on hazard mitigation and recovery planning. The Town of Calabash has survived many storms, and will survive many more, and will continue to flourish.

The speed and strength of the storm is important<sup>36</sup>. The following Table shows the amount of acres which may be flooded by storm surge in Calabash by a **fast** moving hurricane.

**Calabash Storm Surge/Acres of Inundation<sup>37</sup> – (fast moving storm) – Municipal Area**

<b>Hurricane Rating</b>	<b>Acres Inundated</b>	<b>Total Acres</b>	<b>Percentage</b>
Category 1 & 2	172	1,680	10%
Category 3	273	1,680	16%
Category 4 & 5	373	1,680	22%

<sup>35</sup> This information was received from the National Hurricane Center.

<sup>36</sup> Hurricane strength is shown here according to the Saffir-Simpson scale (1 = lowest strength and 5 = highest strength).

<sup>37</sup> This information was received from the Division of Coastal Management, NC Department of Environment & Natural Resources. Calculations were made by Cape Fear Council of Governments.

**Calabash Storm Surge/Acres of Inundation – (fast moving storm) – ETJ Area**

Hurricane Rating	Acres Inundated	Total Acres	Percentage
Category 1 & 2	185	800	23%
Category 3	276	800	35%
Category 4 & 5	599	800	75%

**Calabash Storm Surge/Acres of Inundation – (fast moving storm) – Planning Jurisdiction**

Hurricane Rating	Acres Inundated	Total Acres	Percentage
Category 1 & 2	357	2,480	14%
Category 3	549	2,480	22%
Category 4 & 5	972	2,480	39%

Flooding from storm surge may cause extensive damage. Water weighs approximately 1,700 pounds per cubic yard; extended pounding by even very small waves or current can demolish any structure not specifically designed to withstand such forces.

**(7) Non-coastal Wetlands (Probable 404 Wetlands)**

Within the planning jurisdiction of the Town of Calabash there are areas of freshwater wetlands<sup>38</sup>. Development activity in these areas is regulated. The State has authority through the Clean Water Act to review federally permitted wetland disturbances (including dredge and fill activities) to be sure the activities do not damage wetlands to the point they no longer support their designated use. The NC Division of Water Quality (DWQ) performs this review, which is called a 401 Water Quality Certification.

The types of non-coastal wetlands found in Calabash are freshwater wetlands (or marshes) and seasonal wetlands. Freshwater wetlands are perhaps the most familiar type of wetland. They are found alongside or within the roadside ditch and at the edges of ponds and rivers. Freshwater wetlands, in whatever form they may take, are an extremely important part of the natural areas of any community. They are habitat areas for a variety of diverse plant and animal species and are often an important component part of sensitive groundwater recharge areas. Seasonal wetlands fill with winter rains and will generally dry out during summer and fall. They are as ordinary as a puddle in the backyard and yet are also critical, especially as breeding habitat, for a wide variety of important species of animals. Since these seasonal wetlands are often smaller than one acre, they are not well protected by existing regulations.

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<sup>38</sup> These areas are to be understood as different from the coastal wetlands identified in this document under the section AECs. Coastal wetlands are composed of areas of salt marsh.

### **Calabash– Non-Coastal Wetlands<sup>39</sup>**

	<b>Acres Wetlands</b>	<b>Acres Total</b>	<b>Percent Wetlands</b>
<b>Municipal</b>	415	1,680	24%
<b>ETJ</b>	31	800	4%

Section 404 of the Clean Water Act enables State and federal agencies to regulate development activities occurring in wetlands. The 401 (previously discussed) and 404 programs require permits before disturbing wetland areas. The NC Division of Coastal Management currently reviews U.S. Army Corps of Engineers (404) permits issued, for projects over one-third of an acre in size, for consistency with Coastal Resources Commission regulations and policies contained in local Land Use Plans. The majority of freshwater wetlands permits requested are granted. It is not the intent of this process to deny people the use of their land. The process is designed to give officials the opportunity to work with people, and in some cases to modify projects, to lessen impacts on wetlands.

### **(8) Water Supply Watersheds & Wellhead Protection Areas**

There are no water supply watersheds within the Town of Calabash. There are also no water supply watersheds in Region O (Pender County, New Hanover County, Brunswick County, Columbus County)<sup>40</sup>. There are no ordinances in place in Calabash which are designed for the purpose of wellhead protection.

### **(9) Environmentally Fragile Areas**

Fragile areas are areas which could easily be destroyed or damaged by inappropriate or poorly planned development. Some of these areas, as noted below, are located within the Town of Calabash. Policies to protect these areas are discussed in the Land Use Plan section on policy.

#### **a. Wetlands**

There are 1,680 total acres within the Calabash Town limits. Of these, 70 acres are coastal wetlands (or salt water marsh). Coastal wetlands therefore describe 4% of the municipal acreage. There are 95 acres of coastal wetlands within the extraterritorial area (ETJ). This acreage is 12% of the total area of the ETJ.

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<sup>39</sup> This information was received from the NC Division of Coastal Management, DENR, and the figures are estimated totals. Computation of the totals from the information received was by Cape Fear Council of Governments.

<sup>40</sup> There is a watershed protection area in Bladen County near the Columbus County line. This is the closest surface water supply area to Calabash. The Brunswick County public distribution system is the source for Calabash's potable water.



Exceptional wetlands<sup>41</sup> comprise 415 acres, or 24%, of the total acreage in the city limit. These wetlands comprise 31 acres, or 4%, of the total area within the ETJ.

**Calabash Wetlands<sup>42</sup> – Coastal & Exceptional**

	<b>Total Acres</b>	<b>Coastal Wetlands – %</b>	<b>Exceptional Wetlands – %</b>
<b>Municipal</b>	1,680	70 – 4%	415 – 24%
<b>ETJ</b>	800	95 – 12%	31 – 4%

<b>TOTAL</b>	2,480	165 – 7%	446 – 18%
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**b. Natural Heritage Areas**

The North Carolina Natural Heritage Program inventories, catalogues, and facilitates protection of the rarest and most outstanding elements of the natural diversity of our state. These elements of natural diversity include those plants and animals which are so rare, or the natural communities which are so significant, they merit special consideration as land use decisions are made.

By consolidating information about hundreds of rare species and natural communities, the NC Natural Heritage Program is able to ensure the public is able to get the information needed, to weigh the ecological significance of various sites, and to evaluate the likelihood and nature of ecological impacts. This information supports informed evaluations of the trade-offs associated with biological diversity and development projects before plans have been finalized. The information gathered facilitates the establishment of priorities for the protection of North Carolina's most significant natural areas.

In the Town of Calabash's ETJ area the Natural Heritage Program has identified the "Colkins Neck Remnant" area as a significant natural area. This parcel is a 66 acre privately owned tract of land located within the Town of Calabash's ETJ. (The area is in the extreme southwestern area of the ETJ.) There are no special protections in place for this privately owned property.

The Natural Heritage Program has a data base which may be accessed on-line at <http://www.ils.unc.edu/parkproject/nhp/overview.htm>. This website gives a listing by County of the elements of natural diversity in North Carolina.

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<sup>41</sup> This includes the following types: estuarine shrub/scrub, managed pineland, swamp forest, pocosin, pine flat, hardwood flat, and various other cleared or cut over wetland types.

<sup>42</sup> This information was received from the NC Division of Coastal Management, DENR, and the figures were computed by Cape Fear Council of Governments.

### **c. Areas Containing Endangered Species**

The term "endangered species" is used to describe an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range. The term "threatened species" is a classification provided to a plant or animal likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Areas which contain, or are likely to contain, endangered or threatened species in the Town of Calabash's planning jurisdiction include the undeveloped and forested areas of the Town's planning area (including Colkins Neck Remnant), and the marshes along the Town's estuarine shoreline interface with the Calabash River.

It is important to keep in close touch with agencies and with the officials employed by these agencies charged with the protection of endangered species. Sightings of rare and endangered plants and animals should be reported.

### **d. Prime Wildlife Habitats**

The term habitat describes the environment in which a plant or animal lives. This term is all inclusive and may describe vegetation, soil, water, or other characteristics, or a combination of characteristics. Prime habitat is an area in which a plant or animal lives and which exhibits the highest quality or has excellent, or all necessary or desired features in abundance, which describe the habitat.

There are many acres of prime wildlife habitat in Calabash. It is most important to identify those areas of prime habitat which serve the function of providing habitat for threatened or endangered plant or animal species. These areas are defined in this document in the preceding section on endangered species.

### **(10) Additional Natural Features Identified by Calabash**

The Town of Calabash identified no additional natural features to the inventory previously described.

#### **Section 4: Composite Map of Environmental Conditions**

The Composite Map of Environmental Conditions (Map 8) is located in the Map appendix of this document. The map shows lands classified by class according to the potential the land has for development. A brief description of the attributes of each class of land in Calabash follows in this section. The municipality and the extraterritorial area are mapped.

##### **Environmental Composite Categorization of Features – Calabash**

<b><u>Area</u></b>	<b><u>Class I</u></b>	<b><u>Class II</u></b>	<b><u>Class III</u></b>
In-Town	26%	42%	32%
ETJ	5%	74%	21%

**A. Class I - land containing only minimal hazards and limitations that may be addressed by common land planning and development practices**

<b><u>Environmental Class</u></b>	<b><u>Natural Features &amp; Hazards/Constraints</u></b>
<b>Class I</b>	<ul style="list-style-type: none"><li>-Non-wetland area or wetland rated beneficial and not high potential risk (NC-CREWS)</li><li>-Land located outside 100 year flood hazard area</li><li>-Land located outside storm surge area</li></ul>

**B. Class II - land containing development hazards and limitations that may be addressed by methods such as restrictions on types of land uses, special site planning, or the provision of public services**

<b><u>Environmental Class</u></b>	<b><u>Natural Features &amp; Hazards/Constraints</u></b>
<b>Class II</b>	<ul style="list-style-type: none"><li>-Estuarine shoreline</li><li>-Ocean erodible area</li><li>-High hazard flood area</li><li>-Land located outside designated historic districts or more than 500' from a historic or archaeological site</li><li>-Soils with moderate to severe septic limitations</li><li>-Soils with moderate to severe erosion hazards</li><li>- Non-coastal wetland area rated beneficial and high potential risk or substantial significance (NC-CREWS)</li><li>-Land located within a 100 year flood hazard area</li><li>-Land located within storm surge area</li></ul>

**C. Class III - land containing serious hazards for development or lands where the impact of development may cause serious damage to the functions of natural systems**

<u>Environmental Class</u>	<u>Natural Features &amp; Hazards/Constraints</u>
<b>Class III</b>	<ul style="list-style-type: none"><li>-Coastal Wetland</li><li>-Estuarine Waters</li><li>-Public Trust/Protected lands</li><li>-Unvegetated beach area</li><li>-Non-coastal wetlands rated as substantial significance with high potential risk or exceptional significance with or without high potential risk (NC-CREWS)</li><li>-Significant Natural Heritage Area</li><li>-Inlet Hazard area</li></ul>



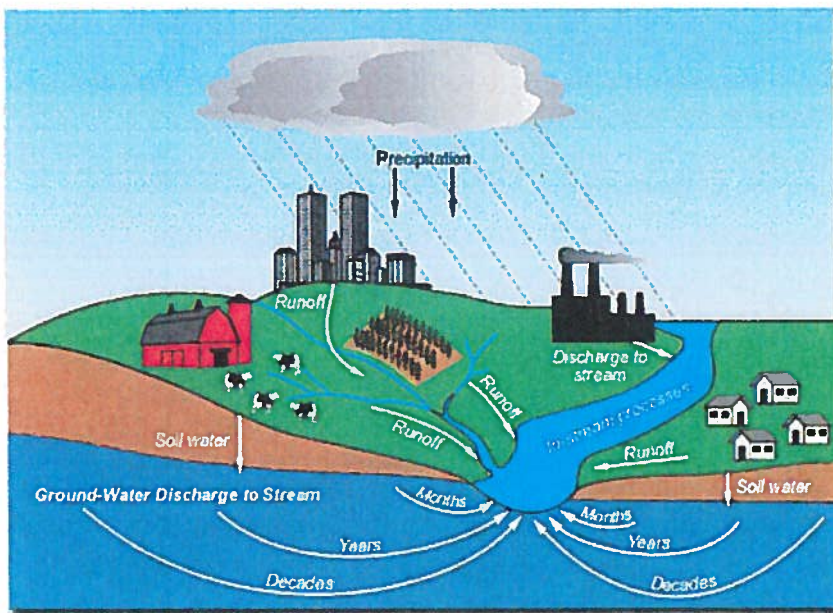
## Section 5: Environmental Conditions

The Land Use Plan provides an assessment of the following environmental conditions and discusses the implications of development on the resources.

### A. Water Quality

Healthy water contains a balanced amount of nutrients and will show normal fluctuations in salinity and temperature. Healthy water also has plenty of oxygen and little sediment so that underwater living resources can breathe or receive enough sunlight to grow. Monitoring changes to North Carolina's water quality is important<sup>43</sup>, and the data collected can help scientists make determinations about water quality.

Factors effecting water quality include: nutrients ... which are essential for plants and animals, but too much can cause harmful effects; sediments ... which can cloud the water and which can hamper the growth of or kill aquatic plants; water temperature ... which affects when animals and plants feed, reproduce, and migrate; salinity ... which greatly determines where plants and animals live within the estuarine waters; dissolved oxygen ... which is essential for animals living within the estuary; and chemical contaminants ... which can affect the growth, survival and reproduction of benthic organisms.



The water quality in the vicinity of Calabash, in the Calabash River, is relatively good. The quality of these waters is believed to be attractive to prospective residents, current residents, tourism oriented businesses such as the waterfront restaurants, and to the development community.

<sup>43</sup> In NC water quality monitoring and the classification of coastal waters is done by the NC Division of Water Quality, DENR.

In Town and within the ETJ, the Town of Calabash has several large tracts of currently undeveloped land which are adjacent to the Calabash River. The development of these parcels of land may have water quality implications. The extent of the effect of development on water quality will be in direct proportion to the actions required for mitigation of water quality degradation. The areas are shown on the Existing Land Use Map in the back of this Land Use Plan.

As water quality impacts are cumulative, there is never just one source for the degradation of our area waters. The Town of Calabash recognizes clean water as a treasured asset and a part of the community's cultural heritage and Calabash will work to maintain a comprehensive planning program which will take best management practices for water quality maintenance into consideration when considering development proposals.

#### **(1) Status and changes of surface water quality**

The water quality within the planning jurisdiction of the Town of Calabash is supporting of its classification for recreational swimming and fishing. The entire Calabash River in Calabash is classified as SA waters. The Calabash River was designated SA on December 1, 1963<sup>44</sup>, and the classification of these waters has not changed since that time. According to the most recent Lumber River Basinwide Water Quality Plan (12/2003) the surface water "supports" the classification of SA. However, due to fecal coliform levels exceeding state standards in Calabash River, the water body is considered "impaired" for shellfish harvesting and consumption. Water quality classifications were discussed earlier in this Land Use Plan, and also see Part 1: Section 3(2)(a) for discussion on elimination of septic system use.

#### **(2) Current situation and trends on permanent and temporary closures of shellfishing waters**

For coastal North Carolina, including those areas within the Calabash planning jurisdiction, rainfall resulting in significant runoff is the element having the most detrimental effect on water quality. After 0.5 inches (or greater) of rain within a 24 hour period or 0.75 inches (or greater) within a 48 hour period, certain areas with substantial amounts of impervious surfaces may be recommended for closure by the Shellfish Sanitation Section. Closure is recommended by Shellfish Sanitation Section to the NC Division of Marine Fisheries who implements and enforces the closures. Patrol of shellfish harvesting areas is the sole responsibility of the Division of Marine Fisheries Law Enforcement Section. Once an area of conditional or temporary opening has been closed, the area will not be recommended to be opened again until sampling of both water and shellfish meats meet approved area criteria.

Within the Town of Calabash, the Calabash River is permanently closed to shellfishing. The areas in the vicinity of Calabash closed to shellfishing are shown on the Closed Shellfish Harvesting Area Map in the back of this Land Use Plan.

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<sup>44</sup> This information was received from Jeff Manning of the Planning Section, Division of Water Quality, NC DENR, in February 2005.

As mentioned previously, monitoring and sampling of the Calabash River has shown excessive levels of fecal coliform. Fecal coliform is bacteria found in human and pet waste and is harmful to humans if ingested or otherwise entered into the human body. The primary way in which the bacteria enters the body is through consumption of contaminated shellfish. Shellfish water impairment in Calabash is attributed to septic system malfunction or septic systems placed in areas where the soil has septic limitations, such soil can cause septic system waste to poorly drain on site or the soil is "wet" and does not absorb additional septic flow adequately. In either case, excess septic waste runoff can enter surface water bodies by flowing into nearby creeks and other tributaries.

The Town of Calabash and the South Brunswick Water and Sewer Authority (recently taken over by Brunswick County Public Utilities) had received a 3 million dollar grant to begin sewer system infrastructure in town to help alleviate the septic system problem. In addition, as of the date of this plan (Late Summer 2006) the Town is seeking additional expansion of its sewer infrastructure to take more locations off septic systems.

Another contributor to shellfish closings involves marina related activities. Calabash has two significant marinas on the Calabash River which have been identified by the Shellfish Sanitation Branch as likely contributors to shellfish closures. Adequate pump-out stations at the marinas are a recommended option for reducing pollution to the Calabash River.

### **(3) Areas experiencing chronic wastewater treatment system malfunctions**

There are no areas within the planning jurisdiction of the Town of Calabash which are experiencing chronic wastewater system malfunctions or which have water quality or public health problems associated with, or as a result of, wastewater treatment system malfunctions.

### **(4) Areas with water quality or public health problems related to non-point source pollution**

Non-point source pollution from construction activities and increasing impervious surfaces and marina related activities adjacent to surface waters are the likely contributors to water quality degradation and shellfish closures in the waters within the Calabash jurisdiction. Calabash has established stormwater control requirements in excess of state standards as a way to alleviate continued water degradation.

## **B. Natural Hazards**

The types of storm events which may catastrophically or negatively effect the Town of Calabash includes *hurricanes* and *tornados*. Both types of storms are extremely powerful and unpredictable forces of nature. Hurricanes are large low pressure systems which form in the tropics and may move into our region. These storms bring strong winds. (In fact, the defining factor of a hurricane is that it must have winds in excess of 74 miles per hour (mph).) There are four primary causes of fatality and property damage during these two storm events: high wind; flooding; wave action; and erosion. High winds and flooding are particularly relevant to Calabash.



Wind is the major determinant of a hurricane. Any tropical storm with sustained wind in excess of 74 mph is classified as a hurricane. Hurricanes are judged by their power according to a model known as the Saffir-Simpson scale. This measure of the power of a hurricane classes hurricanes according to a sliding scale from 1 to 5 (with category 5 storms as the most severe). Category 5 storms are rare. Calabash, because of its location, would feel nearly the full force of a hurricane as a result of its location close to the Atlantic Ocean. The friction or impact of the storm hitting land from the water causes dissipation of the full force of the storm, so the inland areas of Brunswick County would be somewhat protected, though there is still tremendous energy left to overturn mobile homes, down power lines and other public utilities, destroy crops, and fell trees.

Tornados are extremely forceful whirlwinds which effect a much narrower path than a hurricane. These storms may have winds in excess of 300 mph and are the most powerful wind storms. Rain may also be associated with these storm events. During a tornado strike, structures built by man do not fare well and are most often completely destroyed. Tornados are more common visitors to Brunswick County than hurricanes. Over water tornados are known as water spouts. Man's successful efforts to mitigate the effect of tornados has been negligible due to the raw power of these storms.

**(1) Areas subject to storm hazards such as recurrent flooding, storm surges, and high winds**

Storm surge areas have been mapped as a part of this document. The Storm Surge Inundation Area Map is included in the back of this Land Use Plan.

Calabash is subject to flooding caused by wind and tides along the coast and sounds. Storm surge, associated with low-pressure systems with winds in excess of 74 mph, also known as hurricanes, have also been the cause of flooding in Calabash. Periods of high water are generally caused by a sustained wind velocity of 20-25 miles per hour out of the southeast.

Any development or redevelopment within areas subject to flooding must be built according to the requirements of the Town of Calabash Flood Damage Prevention Ordinance. Minimum lot size requirements, consistent with the Flood Damage Prevention Ordinance, are in the Zoning Ordinance and are mentioned in the Future Land Use Map classification categories discussion within this document. The development restrictions imposed for these areas are strictly for the purpose of allowing property owners the opportunity to better avoid or withstand natural hazards.

**(2) Areas experiencing significant shoreline erosion as evidenced by the presence of threatened structures or public facilities**

Areas in Calabash experiencing erosion include those estuarine system areas of environmental concern described as the estuarine shoreline. The Town of Calabash is concerned about the long-term impacts of erosion. . The Town will preserve, adjust, and adapt ordinances, as necessary to protect the health, safety, welfare and property rights of residents.

### **(3) Estimates of public and private damage resulting from floods and wind since the last plan update**

Last major storm was Charlie – July 2004. Brunswick County was not named a disaster area. There was damage in Town. This damage was settled between individual property owners and their insurance company. Town expense was pick-up and clean-up of storm debris.

### **C. Natural Resources**

The impacts of growth and development on natural resources should always be taken into consideration. This is true whether the approval of new development activity is being considered by the Planning & Zoning Board or whether the Town Council is giving final plat approval for a new subdivision.

#### **(1) Environmentally fragile areas - where resource functions may be impacted as a result of development**

The Town of Calabash realizes development pressure on natural resources both in Town and within the extraterritorial planning area is increasing. Local officials, as with all other area residents and visitors, see the results of ongoing development activity everyday. The Town Council and the Planning & Zoning Board realize the need to develop a consensus and direction about the future growth of Calabash. (That effort has been accomplished by agreement on the policies in part II of this document.) Natural resources protection is recognized as a crucial element for the enhancement and preservation of the local environment and for the quality of life of local residents. Calabash residents have expressed, through the creation of this Land Use Plan, a strengthening desire to preserve and protect the natural environment.

Calabash expects residential development to continue and to increase over the planning period for this document. The Town also anticipates the possible location of additional commercial business and service industry businesses within Town. This growth has been planned for and is desired. Such activities would provide employment for local residents and would serve to attract new residents, while also improving the status of Calabash's ongoing economic development effort.

Calabash is committed to preserving the beautiful Calabash River and the abundant natural resources of the Town. Any residential, commercial, or other development activities permitted by the Town of Calabash should be compatible with current regulations, development patterns, AEC requirements, wetlands requirements, soil suitability, and must take measures to mitigate any potential environmental degradation. The Town of Calabash anticipates an influx of new residents and businesses during the planning period for this document. New residential construction, and new retail/commercial development activities that are consistent with the Town's land use policies and the zoning ordinance, will be welcomed.

## **(2) Areas containing potentially valuable natural resources**

The Town of Calabash contains forested areas within both the extraterritorial planning area and the municipal boundary which are of value as a commercial product. The Town relies heavily on natural resources and the attractiveness of the area as a means of drawing tourists and visitors. Green space is an important part of the attractiveness of the community. Calabash is generally opposed to any large scale natural resources extraction type operations either within the Town or the ETJ.

Since the area outlined by the current municipal boundary and the ETJ is of limited size, and since this area and the resources therein are well known to area residents, it is believed to be unlikely the area will be discovered as a potential source for wide scale commercially marketable natural resources. This is therefore not expected to be a problem for Calabash.



## **Section 6: Analysis of Land Use & Development**

### **A. Existing Land Use Map**

The Existing Land Use Map (Map 9) in the Map Appendix shows the Town of Calabash municipal limits and the extraterritorial area (ETJ) boundaries, residential areas, commercial areas, public/government areas, institutional/church locations, dedicated open space, and undeveloped land as it existed at the time of the existing land use survey (2005).

### **B. Land Use Analysis**

#### **(1) Types of land use in Calabash**

The total area within the Town of Calabash planning jurisdiction is 2,480 acres. This total number of acres includes the ETJ. Within Calabash's planning area there are 2,389 separate parcels of land. The number of these parcels in use, any use, is 1,144. The number of acres in the parcels being used is 766. The table following shows various categories of existing land use within the Town of Calabash.

#### **Calabash Existing Land Use – 2004<sup>45</sup>**

	<b>Parcels — Acres</b>	<b>Acres = % of Total<sup>46</sup></b>	<b>Acres Per Person<sup>47</sup></b>
Commercial	101 — 60	2%	.045
Creek & Marsh	2 — 246	10%	.184
Golf Course	11 — 781	31%	.585
Government	2 — 11	> 1%	insignificant
Hotel/Motel	1 — .6	> 1%	insignificant
Institutional/Religious	1 — 6	> 1%	insignificant
Residential	1,119 — 437	18%	.328
Residential MF	4 — 6	> 1%	insignificant
Residential Common Area	2 — 25	1%	insignificant
Undeveloped	1,146 — 755	30%	.566
Right of Way	0 — 152	6%	.114

<sup>45</sup> This information was prepared by Cape Fear Council of Governments from information provided by NC CGIA and the NC Division of Coastal Management, DENR. There are 2,480 acres in the Calabash planning jurisdiction. A small portion of the area within the municipal boundary or ETJ is water or coastal wetlands areas.

<sup>46</sup> The total dry land area within the municipal limits is 2,234 acres.

<sup>47</sup> The most recent official (NC State Data Center) population estimate for Calabash is 1,334 (2003).

As shown in the previous table, the largest category of land use within the planning jurisdiction of the Town of Calabash is in golf course/recreation type use (781 acres). There is also a high percentage of land (30%) which may be categorized as undeveloped. Undeveloped tracts in Calabash represent 755 acres. The third highest category of use is residential. If we count the tracts which are single family residential, multi-family residential, and residential common areas, there are a total of 468 acres within this category of use. Land already developed for residential uses within the Calabash planning area therefore constitute approximately 19% of the total planning area. Commercial types uses constitute a relatively small percentage of the land area in Calabash. Commercial uses account for only 60 acres, or a little over 2% of the acreage, in the total planning jurisdiction.

## **(2) Description of any land use conflicts**

As a relatively small, tourist oriented, Brunswick County community, the Town of Calabash has very limited land use compatibility problems when compared with larger urban municipal areas. There are the normal complaints of municipal residents concerning traffic, litter, lighting and noise in the downtown area. The Town has regulations limiting the density of development through the zoning ordinance. It has not been necessary in Calabash to establish noise level reduction standards. There are no large manufacturing, industrial or mining type operations in Town. No airports or other area establishments or entities are effecting unbearable noise levels on the community.

Local officials believe the downtown waterfront area is crowded, especially during the warm weather months. Parking in this area is a problem about which local residents and business leaders are concerned. It is widely agreed that the Calabash River waterfront should be able to be more thoroughly enjoyed by all residents. Careful planning to preserve and enhance existing business, provide passive recreational opportunities for citizens and visitors, and to preserve water quality, will be necessary for this area.

There are no significant problems with land use conflicts within this community that will not be handled for the planning period by the traditional planning tools (including the nuisance ordinance).

## **(3) Description of any land use - water quality conflicts**

Within the last 30 years, concern has risen nationally and throughout North Carolina about development effects on water quality. Nationwide, considerable resources have been committed to reducing water pollution from agriculture (the single largest contributor to the nation's surface water quality problem), sediments and nutrients in runoff, and from the leaching of chemical residuals from a variety of sources. It is important that policies to improve water quality be designed to account for all costs and benefits of such policies in order to make the most effective use of scarce resources.

The waters of the Calabash River within the planning jurisdiction of Calabash are classified SA with a "supporting" rating for recreational fishing and swimming. The entire Calabash River is also designated a primary nursery area. With these designations given to the waters of the

Calabash River it is unlikely (according to the regulations governing marina development) that additional marinas will be added. It is also unlikely that dredging, other than maintenance dredging of existing channels, will occur. Effects on water quality will be felt from the land areas surrounding the Calabash River. There are undeveloped tracts within the ETJ and the municipality which could degrade water quality if proper actions to control stormwater are not taken. Oversight on development proposals and detailed review of project design will be a continuing challenge for Calabash.

#### **(4) Description of development trends**

According to the most recent statistics, Brunswick County is the fourth fastest growing county in North Carolina with a growth in population over the period of 2000-2003 of 11.9%. Over this same time period the population of the Town of Calabash grew at a rate of 87.6%. (The majority of the population growth was due to annexation.) Within the last ten years (1994-2003) the Town of Calabash issued 403 single-family building permits (190 in Town and 213 in the ETJ). There were 417 building permits issued for manufactured homes during this same period of time (19 in Town and 398 in the ETJ). Of the total number of permits issued for this period<sup>48</sup> the vast majority were for single-family residential projects. This trend will continue.

Though it is anticipated that commercial development will continue both within the extraterritorial area and within the mainland area municipal boundary within the next ten years, it is expected that the majority of development both in Town and within the ETJ will be residential type development activity. The population will continue to grow at a relatively rapid pace. Brunswick County and the popular municipalities therein, including Calabash, of course, will continue to be among the fastest growing areas of North Carolina over the next ten years.

#### **(5) Areas expected to develop during the 5 year period following plan certification & potential conflicts with Class II or Class III land**

All lands within the planning jurisdiction of the Town of Calabash are classified as Class I, II, or III, according to a schedule provided by the NC Coastal Resources Commission and described in this Land Use Plan in Section 4. The Environmental Composite Map, which is located in the back of this Land Use Plan, shows graphically where these areas are located. The classification categories shown by the Environmental Composite Map describes land areas in Class I as the most suitable for development and Class III lands as the least suitable for development.

Areas which are expected to receive development within the next few years exist both within the municipality and the ETJ. The major limiting factor for development in Calabash and the Calabash ETJ is the suitability of soils for septic systems. Other limiting factors for land which will eventually develop in Calabash includes flood zones and storm surge areas. Each of these limiting factors is mapped. The maps are named in the Table of Contents and the maps are located in the Map Appendix.

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<sup>48</sup> There were 822 building permits issued for residential projects in Calabash or the Calabash ETJ within the last 10 years. There were 3 building permits issued for commercial development projects for the same period of time.



Sewer service is available in Calabash's planning jurisdiction in the extreme north area of Town, in the ETJ in the development known as Devaun Park (currently under construction, March 2005), and for all the restaurants along the Calabash River waterfront. There are continuing discussions underway which will eventually lead to the availability of sewer service within all of the business district and to additional residential areas.

Development decisions on lands classified as Class II or Class III according to the Environmental Composite Map, where sewer service is not available, must pass the soil suitability test administered by the Brunswick County Health Department. Development in Calabash is expected to occur primarily on land currently vacant or undeveloped. Limited redevelopment of developed land is anticipated. Development will occur on small lots throughout the planning area. The main limiting factor will be the soil capacity for septic systems. Development pressure may accelerate decisions on the availability of a public sewerage system.

Some of the areas which are expected to receive the anticipated growth are shown on the Environmental Composite Map as Class II or Class III areas. Care will need to be taken with development projects in these areas so that natural systems are not harmed by the development of these lands. Water and sewer infrastructure will not be provided by the Town for new subdivisions or PUDs. The developer is required to provide such infrastructure prior to development approval by the Town.

### **C. Historic, Cultural, & Scenic Areas**

The Land Use Plan contains information on historic, scenic, and cultural attractions. The Preservation of these areas is sought because they provide important linkages to the past and the heritage of the area. The Town of Calabash, which became an incorporated municipality in 1973, is a relatively young community.

#### **(1) Historic Areas**

The State Historic Preservation Office in the Office in the Division of Archives and History, NC Department of Cultural Resources, is responsible for North Carolina's statewide architectural survey program. The Preservation Office assists and guides architectural surveys throughout the state. County level surveys have been completed in 58 of the state's 100 counties, and regional overview surveys have recorded selected properties in an additional 27 counties. Municipal surveys have been completed in about 60 communities. Several thematic surveys encompass specific types of places statewide, such as truss bridges and county courthouses. Cumulatively, these surveys compose an important record of North Carolina's historic architecture. Neither Calabash nor Brunswick County has received a systematic historic architectural survey. However, there is one structure within the planning jurisdiction of the Town of Calabash that is classified as a historical structure. This structure is known as the Hickory Hall Plantation and it is privately owned.

## **(2) Scenic Areas**

The Calabash River, the local marshes, the pristine estuarine waters, and the working waterfront, all provide both visitors and residents with limitless opportunities for the enjoyment of nature and the natural environment of coastal North Carolina. The Town of Calabash is justifiably proud of its beautiful setting.

## **D. Projections of Future Land Needs**

There are 937 acres of “undeveloped” (not improved) land in the Calabash planning jurisdiction in 2005. Approximately 625 acres of the total are on parcels/tracts at one acre in size or greater (i.e. pre-platted or with potential to subdivide). The remaining 312 acres of the total are on parcels less than one acre. There is an additional nearly 1,500 acres of land used as golf course recreation (including The Pearl PUD) that may accommodate additional housing on the fringes of the golf course areas. The 937 undeveloped acres could conservatively accommodate 3,000 to 3,800 housing units (depending on the type of development, dedicated rights-of-way and open space requirements) at the Town’s desired 8,000 square foot lot average. It seems evident there is ample acreage to take care of the additional residential growth projected. Furthermore, the Town’s large projected population growth is primarily based upon annexation of additional land into the jurisdiction with large populations in already planned developments. The projected population growth is not of population growth within the pre-existing Town boundaries, therefore future land needs is not necessarily a factor in the current Town jurisdiction. In addition, there is no urban service boundary established since the Town does not have any plans to operate its own water and sewer utility in the planning period (next 5-10 yrs.). Developments that will be annexed by the Town will first be required to connect to and ensure adequate capacity from County water, sewer and stormwater infrastructure. That capacity is given on a first come first serve basis by the County Utilities Department based upon available capacity. If capacity is not available for a proposed development, the development will have to be scaled back in density or cancelled all together. The Town will not issue the required permits until the development has assured adequate infrastructure capacity from the County Utilities Department.

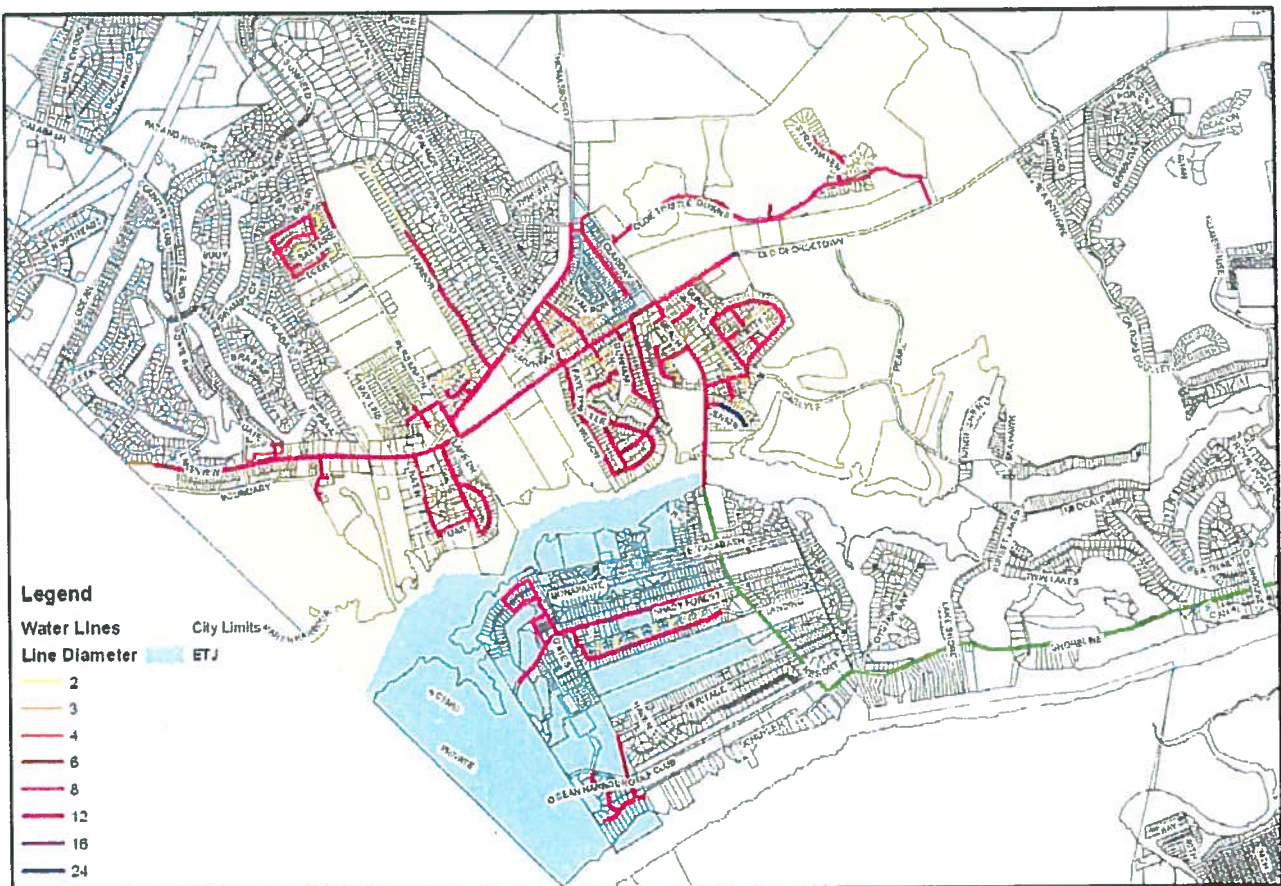
## **Section 7: Analysis of Community Facilities**

The analysis of community facilities provides the Town with information about key types of infrastructure including water, sewer, roads, and storm water management systems. Such types of infrastructure have been termed 'growth shapers' for the impact they have in supporting and managing local land development. In addition, the Town's policies for the operation, maintenance, extension, and development of infrastructure can have a serious impact on the Town's natural environment and ability to adequately manage future growth and development.

### **(A) Water Supply Systems**

Potable water service in the Town is provided by Brunswick County Public Utilities. According to Town estimates, approximately 85% of the Calabash jurisdiction is connected to County water. The Town has no current plans to establish a municipal water utility of its own. New major subdivisions/developments are required to connect to County water at the developer's expense. Infrastructure carrying capacity is determined by the County for all new subdivisions/developments seeking water service on a first come first serve basis. Proposed developments are not approved by the Town of Calabash unless water service capacity has been approved by the County. Existing water infrastructure is shown in the graphic below.

**Map Graphic 2**





## **(B) Wastewater Systems**

The Town of Calabash does not currently operate a sewer utility for its residents. Any sewer service provided to residents or businesses in Town is handled by County public utilities. Proposed Developments are not approved by the Town of Calabash unless wastewater service capacity has been approved by the County. The Town will seek to expand sewer services in phases to cover all its corporate limits. The Town is planning to provide sewer service to existing residences because existing septic systems are seen as a contributing factor to surface water quality degradation and shellfish closures. It is estimated that around 25% -30% of the existing developments in Calabash already have sewer service. All future developments will be required to connect to county sewer services.

Since 2001, downtown Calabash, Saltaire Village and the Hidden Valley subdivision have had sewer service provided by Brunswick County either the nearby Carolina Shores Wastewater Treatment plant (WWTP) or Sea Trail WWTP. According to the Superintendent of the Carolina Shores WWTP, sewer flow from Riverview Road in Calabash eastward is treated at the Carolina Shores WWTP and everything to the west is treated at the Sea Trail WWTP.

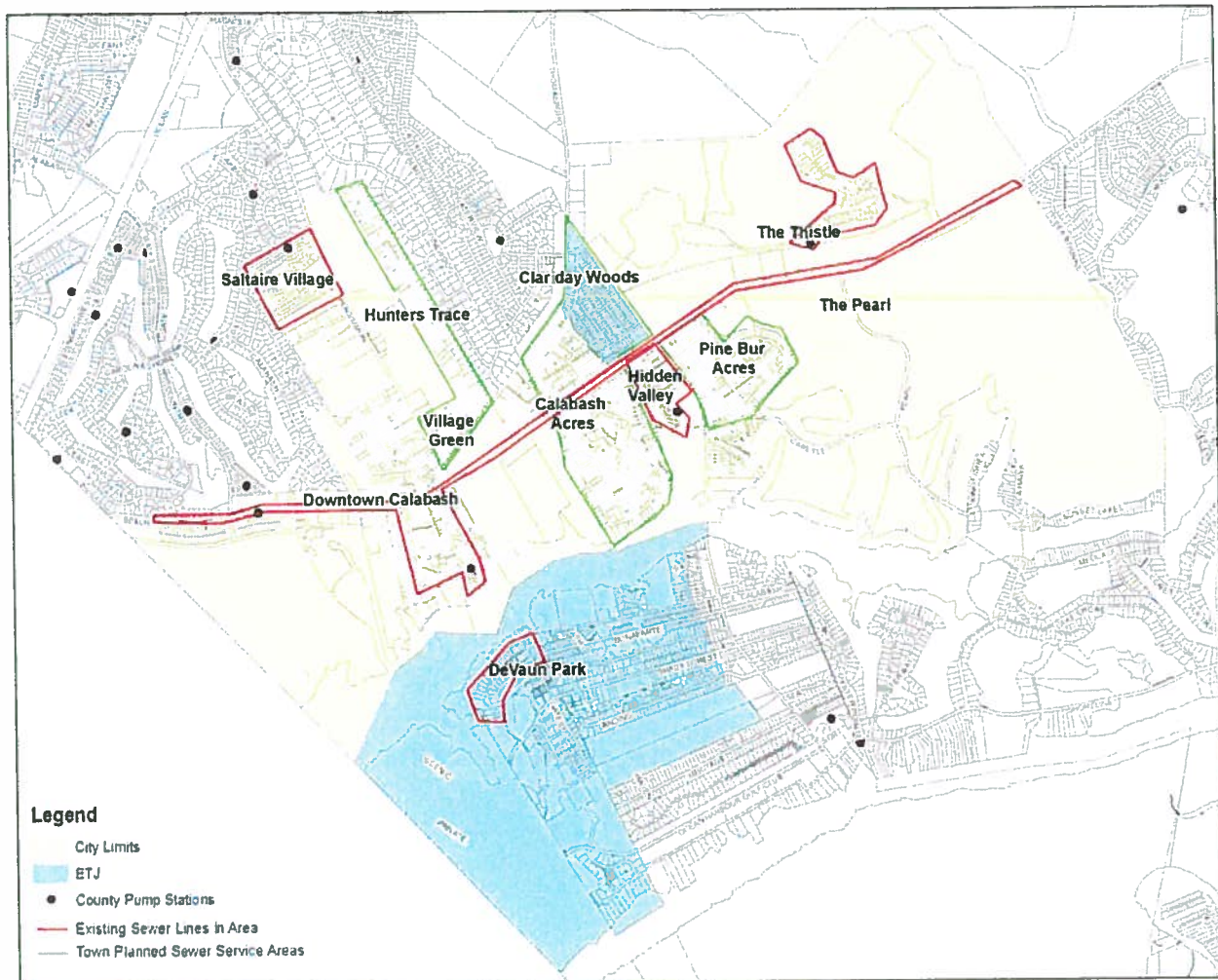
The Carolina Shores WWTP provides a .53 MGD treatment capacity for wastewater. The plant is located in Carolina Shores and treats waste from that town, some of the downtown Calabash area and some outlying subdivisions along the Highway 17 corridor. As of March 2006, the Carolina Shores WWTP was at 76% capacity. The facility is also permitted to construct an additional .3 MGD of treatment capacity for reclaimed water use. This facility discharges under an NPDES permit into an unnamed tributary of Persimmon Swamp in the Lumber River Basin. According to the Plant's most recent annual wastewater report (2004), the Carolina Shores WWTP treated approx. 120,671,000 gallons (.12 MGD) from Jan 2004 thru Dec. 2004. The Facility was privately owned by Carolina Blythe Utility Corp. until August 2004 when Brunswick County purchased and began operation. The facility has upgraded several components in the system since being purchased by the County. These include upgrading existing electrical service and distribution, on-site collection piping and influent lift station upgrades.

The Sea Trail WWTP (County owned and operated) has a capacity of .200 MGD and treats sewer from the Hidden Valley and Thistle subdivisions in Calabash. As of March 2006, the Sea Trail WWTP was at 50% capacity. Brunswick County is in the process (Spring 2006) of expanding Sea Trail by another 100K gallons per day capacity and also permitting a 1 MGD pump station at the Sea Trail WWTP, which will allow the plant to handle flows above .300 MGD. The County Plant in Sea Trail is planned to become a regional pumping station as the expanding sewer system in the eastern end of Calabash and neighboring Sunset Beach come on-line. Wastewater will be pumped through this station to the West Brunswick Water Reclamation Facility near Bolivia, currently under-construction. According to the Brunswick County Comprehensive Wastewater Master Plan conducted by the engineering firm HDR, Inc., the capacity of the West Brunswick Facility under construction will be 3.0 MGD. The current design of the facility allows for future expansion to replicate the 3.0 MGD facility and make it a 6.0-mgd facility. The Master Plan also states that the 275-acre West Brunswick site has adequate land to support up to a 7.0 MGD facility to meet that facility's expected service area needs in 2020.

Existing sewer infrastructure within the Calabash jurisdiction includes a Force Main sewer line which runs along Riverview Road in Downtown Calabash up to Beach Drive (Highway 179) and

then eastward along Old Georgetown Road past the Town's jurisdiction toward the intersection with Highway 904. Another Force Main runs southward along Highway 179 from the intersection of 179 and Old Georgetown Road heading southeastward towards Sunset Beach. Other existing sewer infrastructure includes gravity sewer lines which track off the Force Main to serve River Road, Beach Drive, Saltaire Village and the Thistle subdivision. The existing sewer infrastructure and the areas the Town is planning to provide publicly funded sewer service is shown in the following graphic. Such public funding could include grants, loans, bonds or general funds for capital improvements.

**Map Graphic 3**



### **Sewer Service Expansion**

*As of 2006, the Town is studying the feasibility of installing sewer lines to provide service to seven targeted sections of Town consisting of a total of 1,088 lots currently encompassing 430 homes and 658 empty lots (see map above). NOTE: The Town plans to provide sewer only to existing subdivided/developed areas without sewer. Any currently unsubdivided/undeveloped tracts will be required to have sewer, but it will developer provided not Town provided.*

Calabash River it is unlikely (according to the regulations governing marina development) that additional marinas will be added. It is also unlikely that dredging, other than maintenance dredging of existing channels, will occur. Effects on water quality will be felt from the land areas surrounding the Calabash River. There are undeveloped tracts within the ETJ and the municipality which could degrade water quality if proper actions to control stormwater are not taken. Oversight on development proposals and detailed review of project design will be a continuing challenge for Calabash.

#### **(4) Description of development trends**

According to the most recent statistics, Brunswick County is the fourth fastest growing county in North Carolina with a growth in population over the period of 2000-2003 of 11.9%. Over this same time period the population of the Town of Calabash grew at a rate of 87.6%. (The majority of the population growth was due to annexation.) Within the last ten years (1994-2003) the Town of Calabash issued 403 single-family building permits (190 in Town and 213 in the ETJ). There were 417 building permits issued for manufactured homes during this same period of time (19 in Town and 398 in the ETJ). Of the total number of permits issued for this period<sup>48</sup> the vast majority were for single-family residential projects. This trend will continue.

Though it is anticipated that commercial development will continue both within the extraterritorial area and within the mainland area municipal boundary within the next ten years, it is expected that the majority of development both in Town and within the ETJ will be residential type development activity. The population will continue to grow at a relatively rapid pace. Brunswick County and the popular municipalities therein, including Calabash, of course, will continue to be among the fastest growing areas of North Carolina over the next ten years.

#### **(5) Areas expected to develop during the 5 year period following plan certification & potential conflicts with Class II or Class III land**

All lands within the planning jurisdiction of the Town of Calabash are classified as Class I, II, or III, according to a schedule provided by the NC Coastal Resources Commission and described in this Land Use Plan in Section 4. The Environmental Composite Map, which is located in the back of this Land Use Plan, shows graphically where these areas are located. The classification categories shown by the Environmental Composite Map describes land areas in Class I as the most suitable for development and Class III lands as the least suitable for development.

Areas which are expected to receive development within the next few years exist both within the municipality and the ETJ. The major limiting factor for development in Calabash and the Calabash ETJ is the suitability of soils for septic systems. Other limiting factors for land which will eventually develop in Calabash includes flood zones and storm surge areas. Each of these limiting factors is mapped. The maps are named in the Table of Contents and the maps are located in the Map Appendix.

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<sup>48</sup> There were 822 building permits issued for residential projects in Calabash or the Calabash ETJ within the last 10 years. There were 3 building permits issued for commercial development projects for the same period of time.

Sewer service is available in Calabash's planning jurisdiction in the extreme north area of Town, in the ETJ in the development known as Devaun Park (currently under construction, March 2005), and for all the restaurants along the Calabash River waterfront. There are continuing discussions underway which will eventually lead to the availability of sewer service within all of the business district and to additional residential areas.

Development decisions on lands classified as Class II or Class III according to the Environmental Composite Map, where sewer service is not available, must pass the soil suitability test administered by the Brunswick County Health Department. Development in Calabash is expected to occur primarily on land currently vacant or undeveloped. Limited redevelopment of developed land is anticipated. Development will occur on small lots throughout the planning area. The main limiting factor will be the soil capacity for septic systems. Development pressure may accelerate decisions on the availability of a public sewerage system.

Some of the areas which are expected to receive the anticipated growth are shown on the Environmental Composite Map as Class II or Class III areas. Care will need to be taken with development projects in these areas so that natural systems are not harmed by the development of these lands. Water and sewer infrastructure will not be provided by the Town for new subdivisions or PUDs. The developer is required to provide such infrastructure prior to development approval by the Town.

### **C. Historic, Cultural, & Scenic Areas**

The Land Use Plan contains information on historic, scenic, and cultural attractions. The Preservation of these areas is sought because they provide important linkages to the past and the heritage of the area. The Town of Calabash, which became an incorporated municipality in 1973, is a relatively young community.

#### **(1) Historic Areas**

The State Historic Preservation Office in the Office in the Division of Archives and History, NC Department of Cultural Resources, is responsible for North Carolina's statewide architectural survey program. The Preservation Office assists and guides architectural surveys throughout the state. County level surveys have been completed in 58 of the state's 100 counties, and regional overview surveys have recorded selected properties in an additional 27 counties. Municipal surveys have been completed in about 60 communities. Several thematic surveys encompass specific types of places statewide, such as truss bridges and county courthouses. Cumulatively, these surveys compose an important record of North Carolina's historic architecture. Neither Calabash nor Brunswick County has received a systematic historic architectural survey. However, there is one structure within the planning jurisdiction of the Town of Calabash that is classified as a historical structure. This structure is known as the Hickory Hall Plantation and it is privately owned.



As of 2006, the Town's sewer service plan is estimated to cost \$6.3 million. The Town wastewater service plan would prioritize the subdivisions with the densest populations for initial sewer service. Currently, Calabash Acres has the densest development potential. According to the Town's wastewater planning engineer, Calabash Acres South has a total of 303 lots consisting of 160 houses and 143 empty lots, with Calabash Acres North having 110 lots consisting of 49 houses and 61 vacant lots. In addition to Calabash Acres, areas within corporate limits planned for future sewer service include Clariday Woods, Pine Bur Acres, Village Green, Hunters Trace and Calabash North.

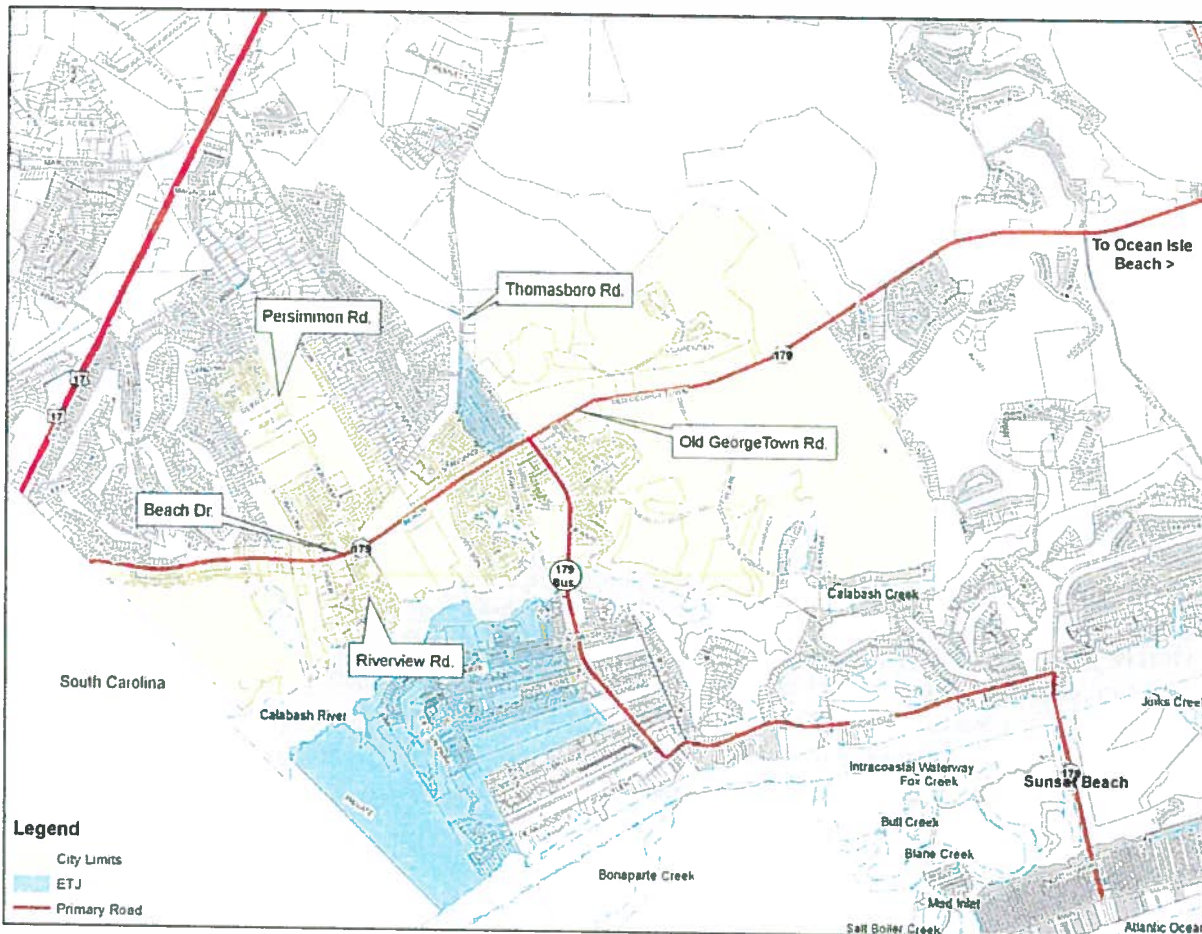
Devaun Park, a newer subdivision in the Town ETJ on the southern side of the Calabash River, has sewer provided by an underwater line connecting to adjacent County lines. Planned developments off Old Georgetown Road, including "The Thistle", "The Pearl" and "Wakefield" either already have or will have County sewer service provided by their respective developers.

Town policy is to require new developments to hook up to county water and sewer.

### **(C) Transportation Systems**

The main thoroughfares servicing traffic in and out of Calabash are Highway 179, which is also known as Beach Drive in Downtown Calabash, Thomasboro Road, and Persimmon Road. Beach Dr./Hwy. 179 contains the Town's central business/downtown corridor. Highway 179 travels east-west and connects Calabash and the population centers in Sunset Beach and Ocean Isle Beach with Little River and North Myrtle Beach, South Carolina. Thomasboro Road connects Highway 17 with downtown Calabash from the northeast. Persimmon Road connects Highway 17 with downtown Calabash from the north. These thoroughfares are shown on map graphic 4 on the following page.

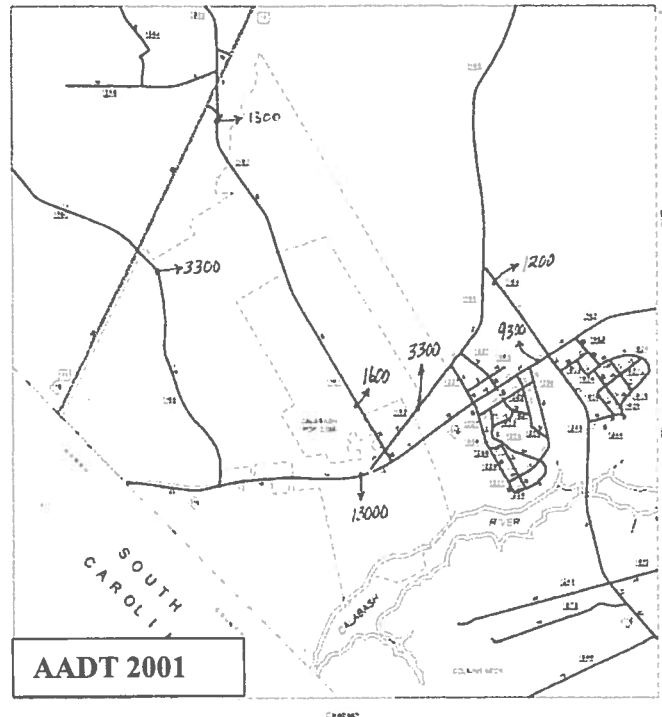
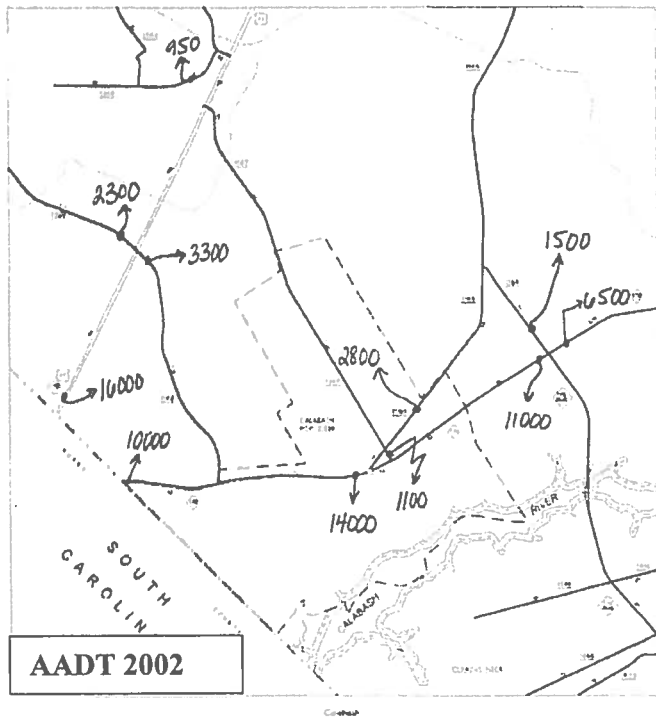
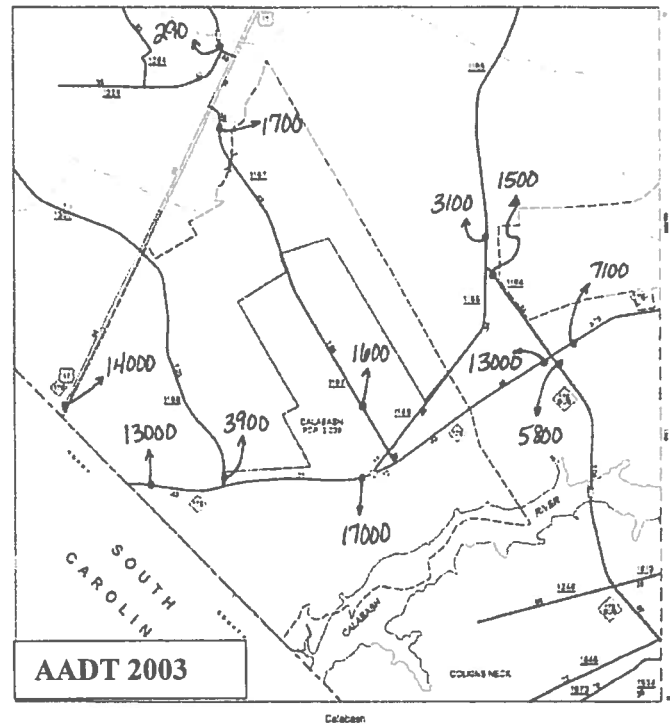
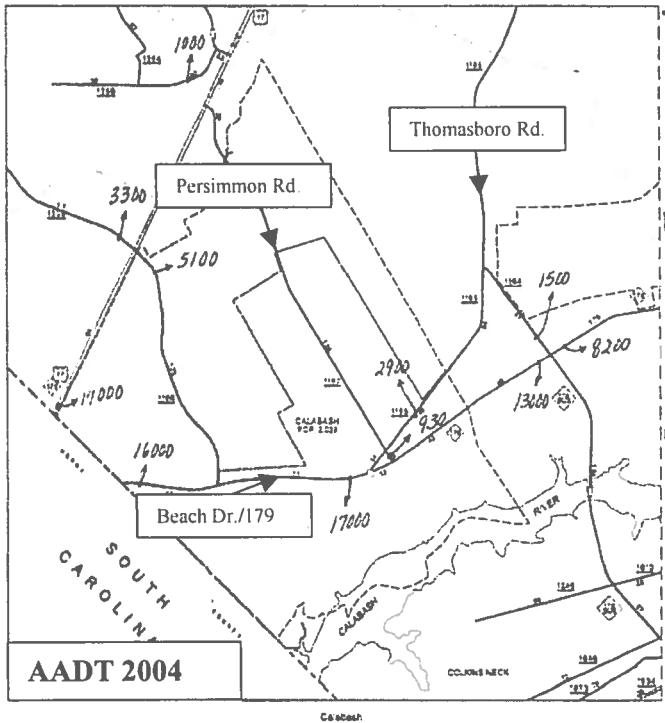
**Map Graphic 4**



### **Traffic Counts on Main Thoroughfares**

The Statewide Planning Branch of the NC DOT collects data on the volume of traffic on major thoroughfares within Calabash's jurisdiction. Major thoroughfares are roads that are intended to carry larger volumes of traffic with limited interruptions. The traffic volume data is known as the Annual Average Daily Traffic (AADT) count. The AADT is the annual average daily traffic volume for all lanes in both directions passing a point on the highway. It represents the average of all days during the year with typical traffic conditions. Traffic count data collected from 1999 through the most recent available data (2004) is shown in the following figures. The data shows a 30% increase in traffic counts over the five-year period for Beach Drive/Hwy. 179. The data shows around a 10% jump in traffic counts for Thomasboro Road when comparing 1999 with 2001 and 2003, however the 2004 count is equal to the 1999 count for Thomasboro Road suggesting that there is not a sustained increase in traffic volume on this thoroughfare within the timeframe measured. However, the Town is having increasing problems with parking on the shoulders and ROWs of Thomasboro Rd. from tourists in the peak season. As Thomsaboro Rd. is a thoroughfare, it is likely providing on-street parking will not be an option. To possibly alleviate this problem, providing alternative parking in other areas with signage on Thomasboro Rd. indicating where additional parking is available should be prioritized by the Town.

Traffic counts are used for determining whether the Level of Service (LOS) is adequate for a given segment of road. There is currently no level of service data for roads in Calabash. The LOS provided by any road is a function of the level of free flow of traffic movement on the road. The DOT can assist the Town in evaluating LOS based on engineering models that factor the design capacity of the road, its speed limit, its width, number of lanes, and the number of driveway cuts on the road allowing traffic to exit and enter. Those factors are compared with the actual traffic counts the road is receiving to determine whether the LOS is adequate or whether road improvements or restrictions need to be used. The 1999-2004 traffic counts are found in the following graphics.



in 2004 to address developments that are under the threshold of state requirements. Many if not all of the requirements of a Phase II community are or will be implemented by the Town of Calabash.

State stormwater permits issued by the Division of Water Quality and the requirements of the Sedimentation and Control Act regulate the larger development projects in Calabash and will be in effect until Senate Bill 1566 is implemented. Current State stormwater permits are triggered by development activities that require either an Erosion and Sediment Control Plan (for developments disturbing one or more acres) or a CAMA major permit (typically developments in very close proximity to public trust surface waters). The State Stormwater Management Program requires developments to protect these sensitive waters by maintaining a low density of impervious surfaces, maintain vegetative buffers, and transporting runoff through vegetative conveyances. Low-density development thresholds vary from 12-30% built upon area (impervious surface) depending on the classification of the receiving stream. If low-density design criteria cannot be met, then high-density development requires the installation of structural best management practices (BMPs) to collect and treat stormwater runoff from the project. High density BMPs must control the runoff from the 1 or 1.5 inch storm event (depending on the receiving stream classification) and remove 85% of the total suspended solids.

***The Town supplements the state stormwater standards by requiring all developments under one acre that cover 25% or more of the site/parcel with impervious surface to provide a stormwater management plan and best management practice to control stormwater runoff. In addition, all commercial developments require a stormwater management plan. The Town also provides educational materials to property owners on how to reduce stormwater runoff and pollutant loads. Also see Part 2: Section 2 Policies 48, and 67-70.***

***The Town also has established a Natural Resource Protection Ordinance to preserve mature growth vegetation and manage lot clearing by requiring "vegetation plans" for new development. The Town has also implemented a 35' vegetated buffer requirement of wetlands and riverfronts for developments on riparian properties. Also see Part 2: Section 2 Policies 48, and 67-70.***

### **Existing Drainage Problem Areas In Calabash**

The Town's stormwater drainage system currently consists of ditches, swales, catch basins/ponds, and piped outfalls to the Calabash River. According to the Town's Stormwater Management Plan, the major flooding problems in Calabash are a result of the inadequate size, number and location of stormwater inlets and retention/detention devices. Also problematic is a lack of vegetated swales to channel and filter runoff away from impervious areas. The Town has identified, through its 2002 Stormwater Management Plan, the following areas as repetitively flooding after storm events:

1. Hunters Trace Subdivision – Harbor Drive in particular has flooding problems. The majority of the development lacks roadside swales to channel water away from roads and low-lying areas. Retention pond/basin is needed.
2. Persimmon Road (near Calabash East subdivision) – Flooding has been attributed to inadequate maintenance of channels and culverts along the road and by additional runoff



entering from Village Green and Calabash East subdivisions. Recommended action is to improve channel maintenance and replaces damaged culverts.

3. Saltaire Village Subdivision – Flooding is caused by runoff generated in the subdivision not being improperly and inadequately diverted through existing channels and culverts. Recommended action is to re-grade channels and improve culverts.
4. Callahan’s property and Riverview Drive – Recommended action is to install retention ponds and drainage swales to collect runoff generated by impervious surfaces in this area.

Other drainage problem areas include:

5. Sommerset and Oak Drives
6. Village Green Subdivision
7. Ella’s Restaurant area
8. Highpoint and Charlotte Avenues
9. Carlyle St., Wren Drive and Pine Bur Circle
10. Lamb Street
11. Ruth Drive and Melvin Drive

#### **Identified Surface Water Quality Problems Associated with Stormwater**

The Town has outfalls to the Calabash River that were created to handle overflows of stormwater runoff from existing ditches and catch basins in Town. Uncontrolled and “untreated” non-point source stormwater runoff is associated with causing surface water quality problems in the Calabash jurisdiction. Additional retention and detention of stormwater in the initial pollutant flushing stages of storm events is needed to allow pollutants to filter-out of runoff before it is allowed to reach the piped outfalls into surface waters. The Town through its Stormwater Management Plan has begun to prioritize areas needing stormwater improvements, including better retention and detention of runoff. The Town’s stormwater ordinance has also established a system for reporting stormwater problems and violations, which also includes requiring remediation and assessing fines for illicit discharges of pollutants into stormwater drainage systems.

## **Section 8: Land Suitability Analysis**

The land suitability analysis is a process for determining the supply of land in the planning area that is suitable for development. The supply of land and its suitability rating is depicted in the Land Suitability Map in the appendix. The overall purpose of the analysis is to provide the local planning team with information on the best and least suited areas for development in order to guide the formulation of local policies. The supply of land in the analysis primarily refers to actual undeveloped land which may experience future development, but all land in the planning jurisdiction was evaluated whether developed or undeveloped. As a result of the overall analysis process, the undeveloped land received a rating based on the degree to which was suitable for future development. The suitability ratings for undeveloped fall into one of four categories ranging from Least Suitable for Development, Low Suitability, Medium Suitability, and Highly Suited for Development.

The suitability rating is based on several factors that may exist on or near the undeveloped land which would affect its overall suitability. For example, consider an acre of undeveloped land which has access to water and sewer infrastructure (a positive 'factor' for development suitability), but also has a wetland area present (a negative 'factor' for development suitability), therefore the overall rating of this land would probably be medium suitability. This example was a simplification and each acre of undeveloped land was evaluated based on a number of 'factors' in addition to the 'factors' of access to water and sewer, or presence of a wetland. It is important to note that the coastal wetland, exceptional and substantial wetland, estuarine water, protected lands, and state and federal land factors were automatically categorized as least suited for development and were excluded from Town ranking.

Also note that for the purposes of measuring suitability across different areas or pieces of land, the land of the planning jurisdiction was divided into one-acre grid cells. Each one-acre grid cell was measured for suitability based on the totality of 'factors' affecting it. Therefore it is important to remember that when we say we are evaluating 'factors' on the land, we are actually talking about evaluating the 'factors' for each acre of land in the planning jurisdiction.

Some of the 'factors' used to evaluate undeveloped land are generalized below:

- The presence or lack thereof of all the natural features characteristics that were included in the Environmental Composite Map
- Proximity to existing development and man-made features (whether services are near and other development has occurred in proximity)
- Compatibility with nearby existing land uses (proximity or presence of negative uses such as an NPDES site or a wastewater treatment plant, etc., nearby the undeveloped land)
- Potential impact of development on historically, culturally significant, or scenic sites (proximity or presence of such features to the undeveloped land)
- Availability and capacity of community facilities (proximity of the undeveloped land to existing water and sewer, roads, and other adequately supporting infrastructure)
- Regulatory restrictions on land development (whether the undeveloped land is owned or restricted from development by local, state, or federal governments).

The following factor criteria table shows the applicable factors found in the planning jurisdiction and the relevancy weights that were assigned to each of these factors to produce the Town's Land Suitability Map.

Layer Name	-----Criteria and Rating-----				Assigned Weight
	Least Suitable	Low Suitability	Medium Suitability	High Suitability	
	<b>0</b>	<b>-2</b>	<b>1</b>	<b>2</b>	
<b>Coastal Wetlands</b>	Inside		Outside		
<b>Exceptional and Substantial Noncoastal Wetlands</b>	Inside		Outside		
<b>Estuarine Waters</b>	Inside		Outside		
<b>Protected Lands</b>	Inside		Outside		
<b>Federal Lands</b>	Inside		Outside		
<b>State Lands</b>	Inside		Outside		
<b>Beneficial Noncoastal Wetlands</b>		Inside		Outside	<b>1</b>
<b>High Quality Waters</b>		Inside		Outside	<b>1</b>
<b>Storm Surge Areas</b>		Inside		Outside	<b>2</b>
<b>Soils with septic limitations</b>		Severe	Moderate	Slight	<b>1</b>
<b>Flood Zones</b>		Inside		Outside	<b>2</b>
<b>Significant Natural Heritage Areas</b>		< 500'		> 500'	<b>2</b>
<b>Hazardous Substance Disposal Sites</b>		< 500'		> 500'	<b>1</b>
<b>NPDES Sites</b>		< 500'		> 500'	<b>1</b>
<b>Wastewater Treatment Plants</b>		< 500'		> 500'	<b>1</b>
<b>Municipal Sewer Discharge Points</b>		< 500'		> 500'	<b>1</b>
<b>Airports</b>		< 500'		> 500'	<b>1</b>
<b>Developed Land</b>		> 1 mi	.5 - 1 mi	< .5 mi	<b>1</b>
<b>Primary Roads</b>		> 1 mi	.5 - 1 mi	< .5 mi	<b>2</b>
<b>Water Pipes</b>		> .5 mi	.25 - .5 mi	< .25 mi	<b>3</b>
<b>Sewer Pipes</b>		> .5 mi	.25 - .5 mi	< .25 mi	<b>3</b>
Total					<b>23</b>

## **Section 9: Review of Outcomes from the Current Town Of Calabash Land Use Plan**

The purpose of the review of the current Land Use Plan section is for the local governing body to evaluate its success, as well as continued problems, in implementing the policies and planned programs adopted in its last land use plan.

While some of the issues identified in this land use plan update are continuations of problems that existed in the previous land use plan (including keeping pace with the need for public access and parking), the Town has begun or has implemented several programs towards reaching many of their primary goals set in the previous land use plan. Some of the major items implemented by the Town include:

1. Establishing an annexation agreement with neighboring jurisdictions.
2. Providing sewer service to the downtown commercial district and waterfront area of Town.
3. Developing a Stormwater Management Plan and implementing a Stormwater Management Ordinance.
4. Establishing a Natural Resource Protection Ordinance to preserve vegetation and manage lot clearing, and to require a 35' foot vegetated buffer around wetlands and riverfront areas.
5. Conducting streetscape enhancement of the downtown waterfront area.
6. Including in their development ordinances the requirement of developers of newly developed subdivisions to provide water and sewer infrastructure.
7. Begun the planning of sewer service expansion to cover all existing developed areas of Town.
8. Surface water quality has remained relatively good and still supports its SA designated uses despite increased growth. However, shellfish closings have continued but the Town hopes with its new stormwater regulations and continued improvements to the stormwater drainage system that water quality will remain good if not improve in the future.
9. The Town has been comparatively successful in preserving its desired "small town" characteristics by controlling lot sizes, densities (multi-family is a conditional use only) and building heights (35 feet town-wide) by codifying and enforcing its development preferences through its zoning ordinance.



## **Phase II: Part 2 – Plan for the Future**

### **Section 1: Calabash Community Goals**

This land use plan section lists the Town of Calabash's future land use goals. These goals represent the desired end towards which the land use plan and its policies are directed. The summary statement of goals also gives a clear overall picture of values and the general principles which guide and describe the Town's development and redevelopment.

#### **(A) Comprehensive List of Community Goals**

The six goals herein listed are a result of detailed analysis and discussion of key issues confronting the Town of Calabash. The goal statements were originally reviewed and approved by the Town of Calabash Planning & Zoning Board and were subsequently approved by the Town Council. These goals encompass the planning vision created early in the planning process and also the technical analysis of existing and emerging trends discussed in Part 1 of this document. The goals listed here provided the Town with a framework for the development of policies and programs.

##### Public access/recreation

**"To optimize public opportunities for recreation through a community system of acquired and (or) purchased parks and park sites, bike paths, ball fields, sidewalks, and access areas providing parking for visitors and residents and leading to the area rivers and creeks and the public trust areas of the Town of Calabash."**

##### Land use compatibility

**"Calabash will ensure that future development will be consistent with the historic small Town nature of the community. Calabash also desires to ensure the preservation of natural resources and to ensure that any uses of the land and water minimize negative environmental impact and avoid risks to public health, safety and welfare, and will not exceed the capability of the land or man-made features to support such use."**

##### Infrastructure carrying capacity

**"To ensure that public infrastructure systems are properly sized, located and managed such that the excellent quality and productivity of such systems are perpetually available and the systems are in top working order, so as to provide exceptional service to systems users and to protect fragile natural areas."**

##### Natural hazard areas

**"To conserve and protect wetlands, flood plains, and other natural features for their storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues."**

##### Water quality

**"To maintain, protect, and where possible to enhance water quality in the Calabash River, the Intra Coastal Waterway, and all coastal or 404 wetlands, creeks, streams, and estuaries."**

##### Local areas of concern

**"To integrate local land use planning concerns (including the need for public access and parking areas in the downtown or river front area of Calabash) with the overall goals of the North Carolina coastal management program and to provide for the protection of economic and environmental resources within the boundaries provided by law through thoughtful and proactive land use planning."**

## **Section 2: Policies for Growth & Development**

The main purpose for the creation of a land use plan is to provide guidance for development activity. To provide the necessary guidance the land use plan gives statements of policy. Land use plans are, most importantly, policy documents. The Town of Calabash recognizes that the basic information on the Town (which is contained in Part 1 of this document) is for the purpose of helping the plan user, who may be a Town official, a developer, or a local citizen, to understand the existing situation in Calabash so that appropriate public and private sector decisions can be made concerning the future growth and development of the Town. The policies in this document are reflective of the desires of the Town of Calabash for future growth and development.

It is important for land use plan users to realize the vision of local leaders for this community for the planning period. The plan section on policy, which follows, gives plan users an extensive view of this picture. The Town of Calabash is sensitive to the need to preserve and protect the natural environment and to preserve the natural amenities and conditions which may be impacted by the activities of man. Calabash seeks to allow development activity which will be consistent with the policies listed in this section and which will allow minimal environmental degradation. The Town expects continuing growth, which will be primarily residential, through the planning period. The Town also expects additional commercial growth. Calabash will strive to maintain the small Town character which it currently exhibits and will seek to accommodate and to welcome new businesses, residents, and visitors within the community.

For each of the policies listed in this section the Town of Calabash has considered a planning period of twenty years.

### **(A) Public Access Goal, Objectives & Policies**

**Goal** = “To optimize public opportunities for recreation through a community system of acquired and (or) purchased parks and park sites, bike paths, ball fields, sidewalks, and access areas providing parking for visitors and residents and leading to the area rivers and creeks and the public trust areas of the Town of Calabash.”

#### **Objectives**

- To make the utmost of and to realize the full extent of all opportunities for local recreation.
- To plan for and create a system of sidewalks and bike paths in Calabash.
- To create ballfields and other active recreational sites within Calabash.
- To provide visual access to Calabash’s rivers and creeks.
- To provide physical access to Calabash’s rivers and creeks via boating and fishing access areas.
- To provide parking for access areas to local streams, creeks, and rivers.
- To have a long-range plan for a community system of parks which will be used and useful.
- To work with regional, state, and county officials to provide recreation and access opportunity.

## **Discussion**

The Town of Calabash is committed to providing excellent public access to area waters and to maximize all opportunities for local recreation. For Calabash the concept of public access includes visual access, as well as recreational access to the waters of the Calabash River. Also included as a part of the recreational or access component of Calabash's goals and objectives is the creation of a system of sidewalks and bike paths in Town. The paths desired will be planned and connected to public and private points of interest around the Town, including especially, the Calabash River. Active recreational sites (ballfields and playgrounds) are also desired. Parking in the downtown restaurant area is a large issue for the Town of Calabash. The commitment to public access and recreation in Calabash springs from historic precedent as the residents of Calabash have always had a close association with area waters and the easily accessible outdoor activities coastal living provides.

As time goes by, and as the size of the municipality continues to grow, both through population growth and through annexation, the challenges of providing excellent public access and recreational opportunities for citizens will become greater. Town leaders have a strong desire for a local river walk to be located in the restaurant district along the Calabash River. The location for such a public or public/private feature is ideal and the Town leaders are excited about the concept. Planning for such public features is recognized as important for the Town of Calabash. Thinking ahead, proactive planning, cooperation, and dealing with important local issues are the recognized and important characteristics of Calabash's leadership. Elected officials, appointed boards, and staff at Calabash have proven themselves up to the challenges faced by a modern municipality.

## **Policies**

### **1) Boat Launches, Wet & Dry Marinas**

The development of boat launching, wet-slip marinas, and dry-storage boat docking facilities shall be supported as a means of providing public water access provided that their development shall not adversely impact estuarine resources or public trust areas.

### **2) Impediments to Navigation or Interference with Public Trust Rights**

The State of North Carolina and the Town of Calabash holds its waters in public trust and promotes public access to these areas. In the absence of overriding public benefit, any use, which significantly interferes with the public right of navigation, or other public trust rights which apply in the area shall not be allowed.

### **3) Improvements (Bridges or Docks) Will Allow Boating Access**

For the Town of Calabash, a navigational channel will be defined as any water channel that is passable by boats during high tide. Permanent obstruction of these navigational channels will not be allowed. Improvements such as bridges and docks must be built to allow boating access.

#### **4) Uses in Public Trust Areas Are Limited**

Uses that may be allowed in public trust areas shall not be detrimental to the public trust rights and the biological and physical functions of the estuary. Examples of such uses include the development of navigational channels or drainage ditches, the use of bulkheads to prevent erosion, and the building of piers or docks. Such uses shall generally be permitted as long as they conform to State development standards.

#### **5) Dredging to Expand Commercial Fishing Opportunity**

(a) In order to expand Calabash's sport and commercial fishing opportunities, Calabash will permit private and public dredging activities that will positively affect those industries. It is recognized that in dredging and stabilization activities, some fish habitat damage may occur. Only those projects, which have a reasonable likelihood of providing greater benefits than damage for marine life, will be supported. All dredging and stabilization projects must be performed in order to minimize any unavoidable damage to fish habitat as stipulated by the U.S. Army Corps of Engineers.

(b) Calabash is supportive of the Corps of Engineers maintenance of the Calabash River and the Intracoastal Waterway.

#### **6) Planning for Growth – Transportation & Community Facilities**

Calabash believes in managing and directing the Town's growth and development in balance with the availability of public services.

#### **7) Bicycle Improvements – Local & Regional**

(a) Town of Calabash supports the provision of bicycle path improvements in order to promote bicycling as an alternative means of transportation, improve bicycle safety, reduce the demand for vehicular parking, promote recreational activities, support the local tourist economy, protect the environment, and conserve energy resources.

(b) The Town of Calabash supports the development of a regional bicycle system throughout Brunswick County and adjoining municipalities.

#### **8) Transportation System Evaluation & Consideration of Alternatives**

To alleviate traffic congestion, the Town of Calabash will evaluate its transportation network during the comprehensive planning process. The Town of Calabash will promote the use of alternative modes of transportation and study the feasibility of developing a shuttle system from off-site parking facilities and major traffic generators to the Central Business District.



### **9) Acquisition of Land for Recreation**

The Town of Calabash is committed to acquiring land for recreational use. It is the policy of Calabash to purchase appropriately identified and available lands for park space.

### **10) Public Access to Public Lands and Waters**

The Town of Calabash is committed to the public having access to public trust land and waters, provided that such means do not conflict with the rights of residents for the use and enjoyment of their property. Calabash supports the utilization of state and federal, as well as local resources, to develop public access areas.

### **11) Recreational Improvements**

It is the policy of the Town of Calabash to work to improve local recreational opportunities. The concept of improvement, in this Land Use Plan, includes the creation of ballfields, playgrounds, and riverfront access in all forms.

### **12) Parking & Public Access**

It is the policy of the Town of Calabash to increase and improve the availability of parking and public access to the Calabash River.

### **13) Municipal Support for a More Beautiful Calabash**

The Town of Calabash will be supportive of local volunteer efforts to create a more beautiful municipality. The Town will strictly enforce local regulations which serve to improve community appearance.

### **14) Traffic Flow in the Restaurant District**

It is Calabash policy to work with NC Department of Transportation officials and to study in a comprehensive manner the Town's needs for enhancement of traffic flow and the possible need for directional signals or other improvements within the downtown restaurant district.

### **15) Creation of a River Walk**

It is the policy of Calabash to support the development of a river walk.

### **16) A Public Park on the River in Downtown Calabash**

It is the policy of Calabash to support and to actively pursue the creation of a public park or public space in the downtown area.

## **(B) Land Use Compatibility Goal, Objectives & Policies**

**Goal** = “Calabash will ensure that future development will be consistent with the historic small town nature of the community. Calabash also desires to ensure the preservation of natural resources and to ensure that any uses of the land and water minimize negative environmental impact and avoid risks to public health, safety and welfare, and will not exceed the capability of the land or man-made features to support such use.”

### **Objectives**

The Calabash Planning Board will study the feasibility of adopting a tree ordinance that promotes the conservation of trees. The Zoning Ordinance will be revised to ensure consistency among growth management ordinances including subdivision and stormwater ordinances.

### **Discussion**

The Town of Calabash is a historic place in a beautiful setting. The Town is enjoyed by residents and visitors. People have come to the Town of Calabash for a variety of reasons. Some have come to enjoy the community as a peaceful retreat in their retirement years, others have chosen this rapidly growing area and the vibrant business community as a place to make a living. The varied reasons people find this area attractive are as different as the personalities of the people who come. From a statistical standpoint what is undeniable is that they have come to visit and they have come to stay ... in increasing numbers.

Tree cover in Calabash, whether maritime or otherwise is a highly valued asset.

These increasing numbers have caused some challenges in the area of land use compatibility. This is not just an aesthetic concern. Though it is true that people are concerned about preserving community appearance. There are also concerns about the scale and size of development projects, about population growth and the infrastructure necessary to serve this growing population, and the increasing amount of impervious surface coverage and what impacts this may have on the waters of the Calabash River. People are concerned about natural resources protection and the disappearance of indigenous vegetation, development in wetlands, protection of cultural resources and the retention of the small Town character and feel residents and visitors value. The Town will guide development away from Areas of Environmental Concern (AECs) and other environmentally sensitive areas by implementing measures like allowing the site-design flexibility of Planned Unit Developments, implementing stormwater regulations that address development under one acre and utilize Low Impact Development (LID) practices, and by requiring vegetated buffers of wetlands and waterbodies.

### **Policies**

#### **17) Water Dependant Uses Must Be Consistent with Local & State Regulations**

Calabash shall permit water dependent uses such as docks, boat ramps, piers, marinas, utility easements, and culverts within estuarine shorelines and waters, provided they meet the definition and use standards of 15 NCAC 7H.

### **18) Uses within the Estuarine Shoreline**

Land uses within the Calabash estuarine shoreline shall be compatible with both the dynamic nature of estuarine shorelines and the environmental value of the estuarine system.

### **19) Trees – Preservation, Planting, & Creation of a Tree Ordinance**

The Town encourages efforts to preserve tree cover in new development and redevelopment.

### **20) General Policy Information on Limiting the Impacts of Growth**

It is the policy of the Town of Calabash to protect the Town from the adverse impacts of growth and development by considering these factors when making land use decisions:

- a) The suitability of land to accommodate the use;
- b) The capacity of the environment to accommodate the development;
- c) The compatibility of the land use with the goals and objectives of the Town;
- d) The density of development and the proposed height of the structures; and
- e) The availability of support facilities and services.

### **21) Planning for Land Use Compatibility Is Ongoing**

It is the policy of the Town of Calabash to institute continuous land use planning and directing growth by implementing and enforcing relevant ordinances.

### **22) Building Height**

It is the policy of the Town of Calabash that no residential or commercial structure shall exceed thirty-five feet (35') in height when measured from ground level to the soffit. An additional 10 feet from the soffit will be allowed for roof ornamental/architectural features.

### **23) Development within AECs**

(a) It is the policy of Calabash to guide new development away from Areas of Environmental Concern (AECs) and other special and sensitive areas.

(b) It is the policy of Calabash to retain a height limitation for residential, commercial, and institutional structures that is deemed compatible with the Land Use Plan and the Zoning Ordinances of the Town of Calabash.

### **24) Industrial Development Not Allowed in AECs**

The Town of Calabash supports light industrial development in areas not containing AECs. Zoning restrictions requiring buffering between adjacent land uses will be enforced.

## **25) General Policy on -Residential Development**

It shall be the policy of Calabash to encourage the development of a variety of housing types to meet the needs and desires of current and future citizens through the following:

- a) To maintain areas exclusively for conventional single-family dwellings for the growing population.
- b) To provide areas for mobile home parks and manufactured housing development.
- c) To allow the development of duplex, townhome, and/or multi-family units (with conditions) within designated zoning districts.

## **26) General Policy on Commercial Development**

The Town wishes to enhance and promote quality commercial development through the following:

- a) Calabash's economic base consists mainly of services pertaining to tourism as the "Seafood Capitol of the World" and the Town will strive to maintain this heritage as a goal in its comprehensive planning efforts.
- b) The Town will continue to enforce its current development ordinances and local building permit process in order to achieve a desired balance between commercial and residential development. Adequate buffering between residential and commercial development will be required.
- c) The appearance of commercial development will be enhanced by the enforcement of zoning, sign, and landscaping regulations.
- d) The Town of Calabash will support efforts to landscape public areas and to encourage beautification of commercial areas within the Town.
- e) The Town of Calabash will consider the feasibility of developing additional sources of public revenues such as the occupancy tax to support tourist-related services.
- f) The Town of Calabash shall encourage limited commercial centers with a small town character along NC 179.
- g) The feasibility of providing a pedestrian and bicycle pathway system in the Central Business District will be evaluated as part of the comprehensive planning process.

## **27) Calabash Will Maintain the Fishing Village Atmosphere**

It is very important that the small-town and "fishing village" atmosphere be maintained. Residential development is considered as desirable as long as there is no major or irreversible damage to environmentally sensitive areas. It is the Town's intentions, as reflected in its zoning ordinance and zoning map, to allow a mixture of residential development in a balanced manner throughout its planning area.



### **28) Redevelopment Activity**

Calabash supports redevelopment activity as a positive re-use of land resources, which enhances the Town as a whole. It is the Town's policy that the type and density of redevelopment conform with the land use plan, and more specifically, existing Town building and zoning regulations.

### **29) Regular Review & Upgrading of the Local Land Use Ordinances**

With the continuing growth of the Town of Calabash it is the policy of the Town to have the local zoning ordinance regularly reviewed and upgraded to continue to be consistent with the North Carolina general statutes, local land use plan and the desires of local officials.

### **30) Calabash Will Create a Landscaping Ordinance**

It is the policy of the Town of Calabash to create a landscaping ordinance, and to stringently enforce the provisions of this ordinance.

### **31) Extraterritorial Jurisdiction**

It is the policy of Calabash to extend its extraterritorial jurisdiction, upon permission of the County Commissioners, to control development in those areas around Calabash which will have future impacts upon the Town of Calabash.

### **32) Annexation**

It is the policy of the Town of Calabash to annex adjacent or eligible satellite land according to the process described within the North Carolina General Statutes and according to annexation agreements with adjacent jurisdictions. Annexation may be by petition or involuntary.

### **33) Maintenance of the River View**

It is the policy of Calabash to maintain the community's view of the beautiful and scenic Calabash River and the Town will, through the adoption and enforcement of land use ordinances, limit the development of numerous large houses or large condominium type development projects on the riverfront.

### **34) Creation of a More Beautiful Community – Nuisance Regulations & Junk**

The Town of Calabash will enact land use regulations which will create a more beautiful community. Calabash will create a beautification committee and will require residents to abide by all local nuisance laws requiring, for example, grass to be cut and all forms of "junk" to be collected and properly disposed of.

### **35) Subdivisions Will Be Built with Infrastructure**

It is Calabash policy that all subdivisions will be built with infrastructure, provided by the developer, according to the minimum requirements expressed in the Town's subdivision regulations.

### **C) Infrastructure Carrying Capacity Goal, Objectives & Policies**

**Goal** = “To ensure that public infrastructure systems are properly sized, located and managed such that the excellent quality and productivity of such systems are perpetually available and the systems are in top working order, so as to provide exceptional service to systems users and to protect fragile natural areas.”

#### **Objectives**

- To guarantee perpetually available excellent public utilities and public services.
- To manage public infrastructure so as to keep systems in good condition.
- To manage public infrastructure so as to provide for the protection of the public health and the environment.
- To ensure the elimination of wastewater as a source of pollution, by providing sewer and removing septs.
- To maintain excellence in the quality of water service provided.
- To require equitable treatment for all community residents.

#### **Discussion**

The Town of Calabash takes pride in increasing the provision of quality services to residents and visitors. The key infrastructure components in Calabash are water service, sewer service, roads, drainage, and public access. The public water and sewer service available in Calabash are and will be within the near future, provided by Brunswick County. Quality services require thorough inter-governmental cooperation and long-range planning and management.

The existing infrastructure system (streets, roads, water, sewer, etc.) and the growth of this system is the key to a successful future for this municipality. As the population grows key components will be added to serve the growing population. Of major importance is the maintenance and protection of natural resources, especially water quality. Working in concert with State and federal regulatory programs to protect resources is an extremely important goal for the Town of Calabash. Additional public parking, additional roads, and a re-working of the historic traffic patterns will be needed within the 20-year planning period for this document. Public access improvements are an important goal of the Town and Town leaders will seek to open new public access and recreational facilities. Stormwater runoff and stormwater ponding on local roads is also a situation which will require the attention of Town leaders.

The transportation element will provide an inventory of the existing roadway and sidewalk system and propose ways to develop a multi-modal transportation network to enhance vehicular traffic, pedestrian and bicycle pathways, and parking facilities. The feasibility of developing a shuttle system between the Central Business District, off-site parking facilities, and the major traffic generators such as new hotels will be explored. The community facilities and public safety element will identify existing and forecasted needs for recreational facilities including parks and boat ramps, police protection, fire protection, and emergency medical services. In order to protect the quality of its coastal waters, the Town of Calabash will support the development of a centralized sewerage treatment and collection system.

An area currently recognized as needing study and improvement is the downtown river front area in the restaurant district. The current recognized problems include ingress, egress and parking.

## **Policies**

### **36) Calabash Desires a Centralized Sewerage System**

- (a) A proposed centralized sewer system shall be encouraged as a means to eliminate pollution from malfunctioning or inadequate septic systems and/ or package treatment plants.
- (b) Connections to the sewer system will be mandatory as sewer lines and service becomes available to adjacent properties.

### **37) Septic Tanks Location & Use**

Until such time as a central sewerage collection and disposal system is developed, growth and development will not be permitted in areas where septic tanks will not function. All septic tanks must be in compliance with State Health Regulations through administration by the Brunswick County Health Department.

### **38) Package Treatment Plants**

It shall be the policy of Calabash to allow package treatment plants in areas outside of the floodplain and if they can be constructed with the overall intent of this plan and meet all federal and state environmental regulations. If and when centralized sewer facilities are made available to areas served by package plants, hookup to the sewer facilities will be required, and the package plant(s) eliminated.

### **39) Planning for Public Services – Transportation & Community Facilities**

Calabash believes in managing and directing the Town's growth and development in balance with the availability of public services. The Town will develop a Capital Improvements Plan (CIP) as a means to manage growth, to upgrade public services as necessary to accommodate year-round and seasonal population growth, to enhance its transportation system, and to preserve its natural resources and cultural heritage.

### **40) Assessment of Capacity in Preparation for Continuing Growth**

It is the policy of Calabash to prepare for continuing population growth by working with the County utilities officials in assessing the capacity of public services and upgrading facilities and services as needed.

### **41) Guiding New Development Away from Hazardous Areas**

It is the policy of Calabash to guide new development away from hazardous areas, such as floodways, where there is a tendency for septic tank problems and flooding.

### **42) Financial Responsibility for Public Services**

As areas develop, it is the policy of the Town that the developer/owner will share in the financial responsibility of providing basic town services.

#### **43) Assessment of Fire, Police, and Rescue**

The adequacy of public services such as fire, police, and rescue services will be assessed as part of the Capital Improvement Plan process.

#### **44) Improvement of Stormwater Management**

In order to protect its coastal waters, the Town of Calabash will continue to enforce its stormwater management program in coordination with regional, county, and state agencies.

#### **45) Regional Bicycle System**

The Town of Calabash supports the development of a regional bicycle system throughout Brunswick County and adjoining municipalities.

#### **46) Replacement of Utilities Destroyed in a Storm Event**

In the event of extensive damage to public utilities requiring replacement or relocation of these utilities, efforts shall be made to locate damaged utilities away from hurricane hazard areas, strengthen their construction, or place them underground.

#### **47) Public Expenditures for Private Roads**

Public expenditure of funds for the repair or reconstruction of any private road or easement, which is damaged or destroyed as a result of an intense storm event, shall not occur, except in conjunction with the repair of Town utilities. Private roads are the responsibility of the property owners.

#### **48) Cooperation with State Agencies on Stormwater Regulations**

The Town of Calabash will utilize state stormwater and sedimentation and erosion control requirements for developments of one acre or more. Developments on land (i.e. parcels/lots) under one acre will be regulated by the Town's stormwater requirements in the UDO.

#### **49) The Timing of Systems Expansion**

It is the policy of the Town of Calabash to expand the sanitary water and sewer systems as the need arises and as funding for the system expansions is available.

#### **50) Providing Street Lights**

It is the policy of the Town of Calabash to provide street lighting as requested and as financially possible. The Town will be sensitive to the concerns of the public related to public safety, the environment, and the compatibility of proposed lighting on established residents.



#### **51) Transportation – Problems of Ingress, Egress, & Parking**

It is the policy of Calabash to periodically evaluate the local traffic situation, to recognize existing problems, and to resolve potential future problems before they occur.

#### **52) Road Maintenance & Repair**

Calabash, in cooperation with the NC DOT, will continue an ongoing program of public road maintenance and repair.

#### **53) Economic Development & Investment in Infrastructure**

The Town of Calabash is committed to continuing to strive to achieve its potential in economic development consistent with the land use plan. Calabash will invest in the necessary infrastructure to support desired growth.

#### **54) Use of Eminent Domain in Property Acquisition**

It is Calabash policy to use all legally accepted means, including eminent domain, for the acquisition of property for public access.

## **(D) Natural Hazards Areas Goal, Objectives & Policies**

**Goal** = “To conserve and protect wetlands, flood plains, and other natural features for their storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.”

### **Objectives**

- To conserve 404 and coastal wetlands.
- To conserve areas prone to flooding through the flood prevention ordinance.
- To protect the public from the threat of natural hazards via land use regulations.

### **Discussion**

The Town of Calabash, along with every other coastal community in North Carolina, faces the threat of coastal storms. The most significant and noticeable of all coastal hazards in Calabash is the threat of possible flooding by flood tides and rains associated with a storm event. High winds associated with coastal storms are also a recognized hazard. The Town of Calabash is active in the mitigation of these threats. The threat of flood damage is mitigated through community participation in the Federal Emergency Management Agency's (FEMA) flood damage prevention program. The local flood damage prevention ordinance contains regulations which construction projects must follow to be eligible to receive federal flood insurance. These regulations, when properly adhered to, will lessen the damage of coastal storms. The adoption and administration of the flood damage prevention ordinance is a service the Town of Calabash provides to property owners. Without the ordinance, federal flood insurance would not be available. The Calabash Zoning Ordinance, which gives location, density, and intensity criteria for development, is consistent with the flood damage prevention program. The NC State Building Code, which is administered by the Town of Calabash, has required provisions to limit wind damage to structures. The Town of Calabash has a proactive and aggressive approach in seeking state and federal participation in assisting property owners with mitigation and with assistance requests following a storm.

The coastal marshes along the Calabash River serve a storm protection function and serve as prime wildlife habitats.

### **Policies**

#### **55) Regulation of Development in Coastal Wetlands**

The CAMA major and minor permitting process and local development ordinances will regulate development in these areas. Unacceptable land uses in coastal wetlands may include, but would not be limited to restaurants, businesses, residences, apartments, motels, hotels, floating structures other than boat docks and parking lots.

#### **56) Construction within the Flood Zone**

All new construction and substantial improvements in the 100-year flood zones must comply strictly to the Town's Flood Damage Prevention Ordinance which has been adopted in conjunction with Calabash's participation in the National Flood Insurance Program.

## **57) Policies Minimizing the Threats Posed By Hurricane**

In order to minimize the effects of a hurricane or other major storm, Calabash endorses the following 5 policies:

(1) High Winds: Calabash supports enforcement of the NC State Building Code. The Town will continue to enforce the wind resistant construction design standards specified in the State Building Code.

(2) Flooding and Storm Surge: Calabash is an active participant in the National Flood Insurance Program and is supportive of hazard mitigation elements. Calabash is participating in the regular phase of the insurance program and enforces a Flood Damage Prevention Ordinance. Calabash also supports continued enforcement of the CAMA and 404 wetlands development permit processes in areas potentially susceptible to flooding.

(3) Wave Action and Shoreline Erosion: Calabash is supportive of the CAMA development permit process for estuarine shoreline areas and the requisite development standards which encourage both shoreline stabilization and facilitation of proper drainage.

(4) Development in Hazardous Areas: The Town of Calabash shall continue to discourage high intensity uses and large structures from being constructed within the 100 year floodplain, erosion prone areas, and other locations susceptible to hurricane and flooding hazards.

(5) Public Acquisition of Hazardous Areas: The Town of Calabash shall consider acquisition of parcels located in hazard areas or rendered unbuildable by storms or other events, for the purpose of public water access and conservation of open space.

(6) Hazard Mitigation Plan: The Town shall work to achieve all objectives in the action matrix of the Hazard Mitigation Plan in accordance with the plan implementation strategy.

(7) Hazard Mitigation Plan: The Town shall maintain consistency between the Hazard Mitigation Plan and Land Use Plan. Proposed amendments to either plan shall be reviewed for consistency with our long range planning documents.

## **58) Reconstruction Following a Storm Event or Disaster**

All reconstruction activity following a storm event (or other crisis causing destruction of man made structures) shall be held at least to the same development standards as before the storm. All construction will be in accord with the NC Building Code, the Calabash Zoning Ordinance and Flood Plain Ordinance Management Regulations, and CAMA regulations and setback requirements. Building permits to restore destroyed or damaged structures built in conformance with the Town's building code shall be issued automatically. All structures suffering minor damage, regardless of their location, will be allowed to be rebuilt to the original condition prior to the destructive event.

Destroyed structures, which did not conform to these development regulations prior to the storm event, must be redeveloped according to the current regulations. In some instances, this may mean relocation of structures or no reconstruction at all.

## **(E) Water Quality Goal, Objectives & Policies**

**Goal** = “To maintain, protect, and where possible to enhance water quality in the Calabash River, the Intra Coastal Waterway, and all coastal or 404 wetlands, creeks, streams, and estuaries.”

### **Objectives**

- To protect the quality of area waters.
- To enhance the quality of area waters.
- To ensure the impacts of development have limited impact on area streams, creeks, and rivers through vegetative buffers, and stormwater detention, retention and diversion practices.
- To create regulations which will be compatible with the goal of water quality protection.

### **Discussion**

The water quality in the Calabash River, as previously discussed in Part I of this document, is designated by the NC Division of Water Quality as SA-HQW. The waters of the Calabash River are also designated as primary nursery areas by the NC Division of Marine Fisheries.

Maintenance of these standards is the goal of Calabash. As development pressures continue the quality of the local waters will be stressed. It is important to understand that the Town of Calabash as a part of the planning process used to create this document has recognized its role as a participating and cooperative protector of the quality of local waters. As the oldest settlement in southeastern Brunswick County and as a community with historic linkages to the area waters, the Town of Calabash is proud to have participated in many years of working successfully to keep up good water quality.

Calabash has established policies which will retain natural vegetative buffers, control the density of development, cooperate with other area local governments, and comply with all state and federal regulations requirements to improve local water quality.

### **Policies**

#### **59) Development May Be Restricted in Coastal Wetlands**

It shall be the policy of Calabash to restrict land uses in coastal wetlands to those that guarantee wetlands conservation and which do not affect their delicate balance.

#### **60) Roads May Be Acceptable Uses in Wetlands – Regulations Will Apply**

In some instances, it may be necessary and in the public interest for roads to transverse wetland areas. Where this is absolutely necessary, state and federal regulations may allow such with certain safeguards and/or mitigation measures.

#### **61) Calabash Will Promote the Conservation & Quality of Local Waters**

Calabash shall promote the conservation and quality of local waters. Appropriate uses may include simple access channels, structures which prevent erosion, navigational channels, boat docks, piers, marinas, and mooring pilings which are consistent with 15 NCAC 7H. This policy



is approved in recognition of the importance of estuarine waters for the fisheries and related industries as well as aesthetics and recreation.

#### **62) Projects Which Enhance the Productivity of the Estuary**

The Town will support those projects that will increase the productivity of the estuary such as oyster re-seeding or dredging projects that will increase the flushing actions of tidal movements.

#### **63) Special Requirements for the Estuarine Shoreline**

Within the Estuarine Shoreline Area, the Town of Calabash believes that certain developed uses should only be allowed to take place which are consistent with 15 NCAC 7H and as further defined by the Town's building and development ordinances, and which satisfy the following requirements: natural barriers to erosion are not weakened or eliminated; development does not interfere with present public access or use of navigable waters or public trust areas; the amount of runoff is unchanged; no pollution is generated; standards of the North Carolina Sedimentation Pollution Act of 1973, amended 1990, are upheld; and the construction of impervious surfaces and areas not allowing natural drainage is limited to that necessary for development.

#### **64) Uses within the Public Trust Areas of Calabash**

Uses that may be allowed in public trust areas shall not be detrimental to the public trust rights and the biological and physical functions of the estuary. Examples of such uses include the development of navigational channels or drainage ditches, the use of bulkheads to prevent erosion, and the building of piers or docks. Such uses shall generally be permitted as long as they conform to State development standards.

#### **65) Protection of Freshwater Wetlands**

It is the Town policy to protect freshwater wetlands, marshes, and 404 wetlands within its planning jurisdiction in accordance with applicable laws and regulations.

#### **66) Protection of Shellfish & Stormwater Management**

The Town supports and encourages the activities of the State's Shellfishing Management Program. The Town promotes water quality through the stormwater requirements in its subdivision and stormwater ordinances.

#### **67) Improved Stormwater Regulations**

It is the policy of Calabash to reduce or eliminate stormwater runoff from new development by continued enforcement of its stormwater control regulations, including stormwater management standards for developments on land under one acre and increased riparian vegetated setbacks or buffers.

## **68) Stormwater Planning**

The Town of Calabash supports the preparation and implementation of a regional comprehensive stormwater management plan and enforcement of stormwater regulations on a comprehensive basis rather than site-by-site.

## **69) Use of Pervious or Semi-Pervious Paving Materials**

The Town of Calabash encourages the use of "innovative" systems that utilize pervious or semi-pervious materials and the retention of natural vegetation that functions as a filter which minimizes the rapid release of pollutants to coastal waters through stormwater runoff. The general intent of the stormwater regulations will be to encourage the percolation of stormwater into the ground and avoid direct discharge of stormwater into the coastal waters.

## **70) Support for a Centralized Sewer System**

It is the policy of Calabash to support the provision of a centralized sewer system for all properties within the municipality as a means to improve water quality by eliminating runoff of surfaced effluent from malfunctioning or inadequate on-site septic systems.

## **71) Maintenance of the Caw Caw Drainage System**

The Town of Calabash supports the maintenance of the Caw Caw Drainage system.

## **72) Fish Habitat Protection for Water Dependant Structures – Who Pays?**

In the design, construction, and operation of water dependent structures, efforts must be made to mitigate negative effects on water quality and fish habitat, as determined by 15A NCAC 7H, the Environmental Management Commission, and the Coastal Resources Commission. The developer and/or owner will bear the cost of any such mitigation.

## **(F) Local Areas of Concern Goal, Objectives & Policies**

**Goal** = “To integrate local land use planning concerns (including the need for public access and parking areas in the downtown or river front area of Calabash) with the overall goals of the North Carolina coastal management program and to provide for the protection of economic and environmental resources within the boundaries provided by law through thoughtful and proactive land use planning.”

### **Objectives**

- To create a policy basis for rules and regulations of local concern.
- To create a “river walk” or a local waterfront park type area with available parking for residents and visitors in the downtown area of the Town of Calabash.
- To give state, county, and federal agencies a clear message on the policy position of the Town of Calabash.
- To effectively and rationally consider and codify the basis for regulations on (primarily) local issues.

### **Discussion**

Through community participation during the planning process, a short list of the most important Town issues was established and includes: the need for additional parking in the downtown area, improvement of traffic circulation patterns in the downtown area, willingness to cooperate with other area local governments for successful solutions to mutual problems, protection of natural attributes and the environment, Calabash is supportive of business, and Calabash wishes to maintain its small town culture, character, and appeal.

Coastal areas that sustain remnant species are those areas that support native plants and animals that are threatened to be rare or endangered. According to the Natural Heritage Program, there are no records of rare species, high quality natural communities, state park and recreation areas, or Significant Natural Heritage Areas within the town and current ETJ boundaries of Calabash; therefore, no policies have been prepared. The integrity of the Colkins Neck Remnant is a local Significant Natural Area. Sporadic occurrences of endangered plant and animal species still occur in this area. Rare plant and animal species sighted in the planning area include the Bachman’s Sparrow, the American Alligator, the West Indian Manatee, and the Coralbean plant.

### **Policies**

#### **73) Floating Homes Are Not Allowed**

It is Calabash policy that floating structures other than boat docks shall be banned in order to protect our estuarine and public trust areas.

#### **74) Projects Not Allowed**

Projects which would directly block or impair traditionally used navigational channels, increase shoreline erosion, deposit spoils below mean high tide, cause adverse water circulation patterns, violate water quality standards, or cause degradation of open shellfish waters shall not be allowed.

## **75) Archaeological Resources**

The Town believes that all development plans in such identified areas should be carefully reviewed prior to approval and that the NC Division of Archives and History should be contacted. Moreover, the State Division of Archives and History will be contacted if any additional archaeological sites previously not recorded are discovered.

## **76) Stabilization of Building Foundations**

Development may be constructed in areas with limitations for building foundations only if corrective measures for stabilizing foundations are incorporated into the building design.

## **77) Protection of Surface and Groundwater**

Sources of potable surface and groundwater for the Town of Calabash shall be protected to the maximum extent possible.

## **78) Enhancing NC's Sport & Commercial Fishing**

- a) The Town of Calabash encourages the protection and enhancement of North Carolina's sport and commercial fisheries industry. Any development or activity, which will profoundly affect coastal and estuarine waters, will be discouraged. Profoundly affect shall generally mean to cause a reduction in the existing fish nursery areas, the closure of open shellfishing areas, a net loss of coastal wetlands, and/or to substantially setback any implemented improvement efforts to restore SA impaired waters
- b) In the design, construction, and operation of water dependent structures, efforts must be made to mitigate negative effects on water quality and fish habitat, as determined by 15A NCAC 7H, the Environmental Management Commission, and the Coastal Resources Commission. The developer will bear the cost of any such mitigation.
- c) Calabash supports the NC Division of Marine Fisheries in their development of regulations and policies, including those on trawling and gill netting in ocean and estuarine waters.

## **79) Occupancy Tax & Other Revenue Sources from Tourism**

The Town of Calabash will consider the feasibility of developing additional sources of public revenues such as the occupancy tax to support tourist-related activities.

## **80) Citizen Participation & Input of Matters of Local Concern**

Calabash believes that its Planning Board which has regularly scheduled meetings, all of which are open to the public, provides opportunities for citizens to air their views and concerns about planning matters. The Planning Board will continue to be the primary vehicle for citizen's input.

The Town of Calabash shall inform its property owners in a quarterly newsletter about its planning and administrative activities.



### **81) Emergency Evacuation**

Calabash will provide for an orderly and timely evacuation of town residents and visitors during a declared emergency by following established procedures set forth by the Calabash Evacuation Plan and by the Brunswick County Emergency Management Agency.

### **82) Building "Moratorium" Following a Storm**

Because of the density of development in Calabash and the possible extensive damage caused by a major storm, it may be necessary for the Town to suspend all redevelopment activities for a certain period of time after a storm. This "moratorium" could allow the Town time to carefully assess all damage in view of existing policies, building regulations, and ordinances in order to help determine whether existing policies should be revised to mitigate similar damage from future storms. The intent of such a moratorium would be to learn all the lessons possible and try and determine what steps and precautions the Town can take to rebuilding so as not to suffer damage to the same extent. If a moratorium is established, the time frame will be commensurate with the extent of the damage. The Board of Commissioners will determine the actual time frame.

### **83) A Comprehensive Approach to Land Use Planning**

It is the policy of the Town of Calabash to make land use decisions based upon a holistic approach to community development.

### **84) Mosquito Control**

The Town of Calabash policy on mosquito control is to carefully address drainage issues, to enact (as necessary) local regulations specific to control of breeding areas or areas which have the potential to become breeding areas for this insect, and to work cooperatively with Brunswick County.

### **85) Nuisances**

It is the policy of the Town of Calabash to update and enforce local nuisance ordinances.

### **86) Updating of Local Land Use Ordinances**

It is the policy of the Town of Calabash to review and to keep current the local land use ordinances.

### **87) Calabash Is Pedestrian & Bicycle Friendly**

It is the policy of the Town of Calabash to create a more pedestrian and bicycle friendly local environment. The municipality will work to create trails, paths, and additional sidewalks. The development of local properties will require adding sidewalks by developers. The sidewalks to be added will be approved as consistent with local plans (as these plans become available) and will be shown as a part of the required infrastructure on proposed subdivision plats and on requests for zoning compliance and building permits.

#### **88) Traffic Lights – Cooperation with NC DOT**

The Town of Calabash will work with the NC Department of Transportation and local citizens on the recognition of need for additional local traffic signaling devices.

#### **89) Preservation of the Commercial Waterfront**

It is the policy of Calabash to preserve commercial uses on the waterfront.

#### **90) Amendments to the Land Use Plan**

It is Calabash policy to regularly review and revise land use ordinances and to amend the Town's Land Use Plan when decisions are made which change local land use policy.

#### **91) Land Use Decisions Will Enhance the Quality of Life**

It is the policy of Calabash to enhance the quality of life of citizens and businesses and to build a future for the community which recognizes and respects the contributions of local history and local historic precedent.

#### **92) Land Use Decisions Will Be Consistent with Local Culture & History**

The Town of Calabash's land use policy is to take actions by enacting and enforcing land use ordinances which will maintain and enhance the historic small town and "fishing village" appeal, appearance, and culture of the Town.

#### **93) Calabash Will Make Land Use Decisions to Enhance Day Visiting**

The Town of Calabash recognizes the local restaurants are more frequently visited, according to the number of customers, by out of town visitors than by local residents. The Town's land use policy is to enhance the experience of these visitors by improving access or traffic flow (ingress and egress) to local businesses.

#### **94) Creative Solutions Concerning Parking & Access Are Sought**

It is the policy of Calabash to use imaginative design and state of the art planning for more creative solutions to in-town parking and access problems.

#### **95) Sidewalks Are Desired**

It is the policy of Calabash to require the installation of sidewalks for new development and to enhance the pedestrian experience throughout the community.

#### **96) Balancing Growth & Environmental Protection**

It is the policy of Calabash to balance growth with environmental protection.

### **Section 3: Future Land Use Map & Map Classification Categories**

#### **The Future Land Use System**

The future land use system provides a framework which will guide the Town of Calabash in identifying the desired and planned future use of all lands within the Town's planning jurisdiction. Some of the land areas in Town are obviously more suitable than others for development activity and the bulk of development should be encouraged in these areas, while development in less suitable areas should be discouraged or at minimum have stricter development standards (see Land Suitability Analysis Map and Environmental Composite Map for generalized suitability areas). The description of the future land use classes will allow Calabash officials to illustrate graphically their policy statements on where and at what density and intensity they wish future growth to occur.

The Town of Calabash will use 3 major land use categories<sup>2</sup> with a few sub categories to describe their planned future development patterns. These 3 major categories are: Conservation, Business District & Town Center, and Residential. Each category is shown in the table below with the percentage of the municipal area within each category.

Business District & Town Center = 12%	Residential = 72%	Conservation = 12%	Right-of-Way = 4%
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#### **(1) Business District & Town Center**

The Business District & Town Center category includes two sub-areas: 1) the traditional core downtown area of Calabash, and 2) areas of highway commercial corridors along Old Georgetown Road (Hwy 179) and Highway 179 Business.

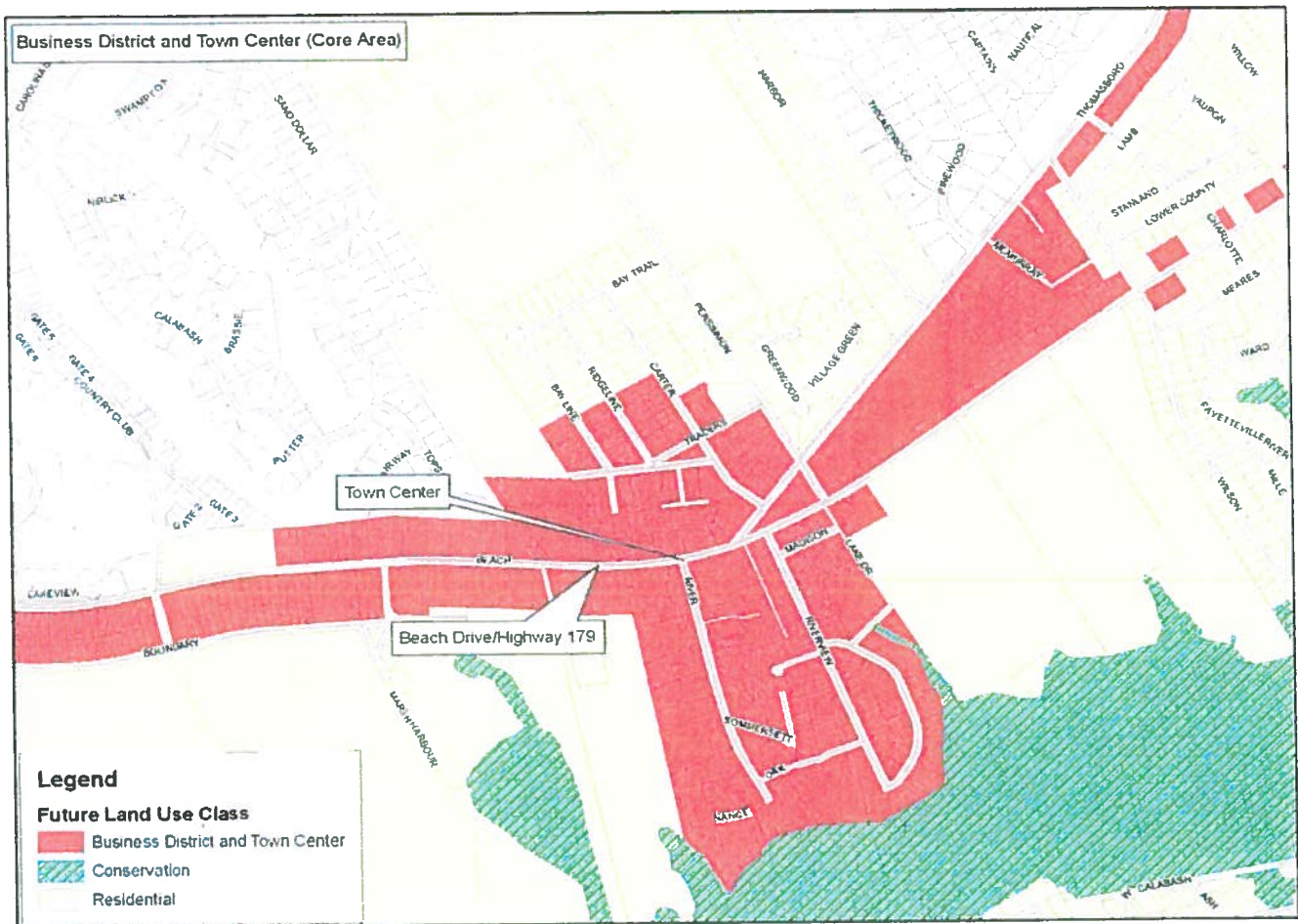
##### **A. Sub Area 1**

The core of the Business District & Town Center category is the commercial river frontage, consisting of the historic working waterfront and the restaurant district. Restaurants, small retail and professional services are the primary existing commercial activities in the core area. Several of the lots in this area are vacant and are planned by the Town to be developed as pedestrian-friendly and small-scale retail, restaurant and commercial service type uses. The Town desire is to keep buildings in the downtown core area within a 35' height limit. Because of limited height allowances, minimum lot sizes in the core area are not required so as to still allow a relatively dense and pedestrian accessible commercial area. The core area is shown on map graphic 5 on the following page (see Future Land Use Map in Appendix for all categories).

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<sup>2</sup> Please review the Future Land Use Map for a graphic depiction of where each of the areas described is located.

**Map Graphic 5**



The core downtown area of this classification includes:

- Restaurants
- Retail
- Professional Services
- Convenience Stores
- Mixed-use type development with some residential in specified areas
- Institutional uses (religious buildings, civic/public buildings, etc.)

It is anticipated that future land uses will remain similar and consistent with the current uses in the core area. Increasing parking and traffic concerns in this classification will need to be addressed through the development of a Capital Improvements Plan, or other means by which improvement projects and land acquisitions can be studied and prioritized. The core business district is expected to continue to be the center for all tourism associated business for Calabash. This area will continue to provide restaurants and retail for residents and visitors as its primary use. The core commercial area is planned to provide more pedestrian and bicycle path and sidewalk connections to local neighborhoods. Planning for the core area also includes acquiring land for a public park and riverwalk. Mixed-use development will be allowed within this classification as long as residential



units remain as a subordinate use to commercial. Mixed-use areas may be allowed around the parcels adjacent Riverview Drive.

**Density and Intensity Standards for the “Core” (Sub-area1) of the Business District & Town Center Category**

Minimum Lot Size	Building Height	Units per acre	Primary Land Use
<ul style="list-style-type: none"> <li>• None (to allow flexibility for various types and scales of commercial activities) Front, side and rear setbacks will be required</li> <li>• Mixed-use developments should require a minimum of 10,000 square feet</li> </ul>	35 feet from ground to soffit (plus an additional 10 feet may be allowed for architectural/ornamental features)	No more than 16 units per acre for mixed-use developments	Restaurant, Retail, and Commercial Service

**B. Sub Area 2**

The second sub area or “highway commercial” area calls for continued or planned commercial activity along the highway corridors along Old Georgetown Road (Hwy 179) and Highway 179 Business (Beach Rd. SW). Sub area 2 of the Business District & Town Center category is established primarily for businesses that serve and expect high automobile traffic areas and/or businesses that require large areas for displaying or storing goods or other related reasons. The highway commercial classified areas along Old Georgetown Road are currently vacant and abut golf course facilities and communities. These areas are planned to provide commercial services such as shopping centers or grocery stores to the adjacent communities located on either side of Old Georgetown Road. The “highway commercial” areas are shown on the following page on map graphic 6.

10

- 10

**Density and Intensity Standards for the “Highway Commercial” (Sub-area 2) of the Business District & Town Center Category**

<b>Minimum Lot Size</b>	<b>Building Height</b>	<b>Units per acre</b>	<b>Primary Land Use</b>
<ul style="list-style-type: none"> <li>• Minimum of 10,000 square feet</li> <li>• Shopping centers will require 3 or more acres for the unified development</li> </ul>	35 feet from ground to soffit (plus an additional 10 feet may be allowed for architectural/ornamental features)	No more than 4.5 units per acre	Automobile dependent Retail and Commercial Service

The Town’s primary policies guiding growth and development in the Business District & Town Center Category include:

**Public Access Policies - Policy #s 8, 10, 12, 14-16**

**Land Use Compatibility Policies – Policy #s 17, 22, 26, 27, 30**

**Infrastructure Carrying Capacity Policies – Policy #s 39, 44, 50, 51, 53**

**Natural Hazard Area Policies – Policy # 56**

**Water Quality Policies - Policy #s 61, 68, 69**

**Local Concern Policies – Policy #s 79, 80, 87, 88, 89, 92, 93-96**

## **(2) Residential**

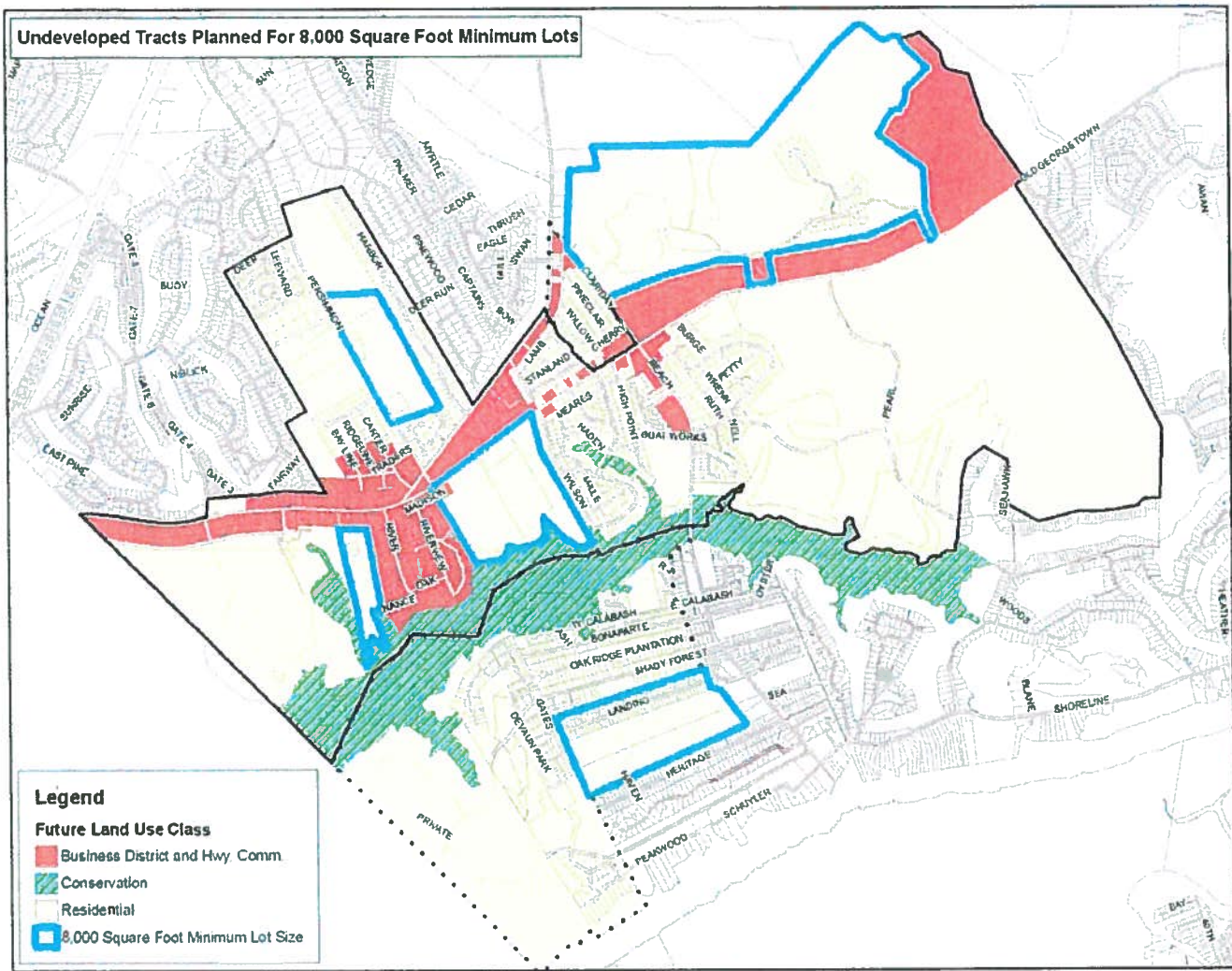
The Town of Calabash will continue to be developed as primarily residential in nature. The lands classified as residential (shown on the Future Land Use Map) comprise two-thirds of the Town's planning area. There is a large amount of undeveloped land in Calabash, 30% of the Town's planning jurisdiction is undeveloped (as of 2005). It is anticipated that residential development will occur at a quick pace, as it has in most of coastal Brunswick County, during this planning period. The size of the municipality will also grow with annexations<sup>3</sup>. In addition to annexations, a major trend will be for the residential areas of Calabash to in-fill on already subdivided, but vacant lots. There are also relatively large tracts within Town which remain unsubdivided, which are planned to be residential subdivisions. The majority of these unsubdivided and undeveloped tracts in Town are zoned for 8,000 square foot lots, allowing approximately 4 units per acre, with single-family homes being the only permitted use by right. The Town desires that the future use of these areas keep their existing zoning dimensional standards intact and single family as the only permitted use by right (see map graphic 7 on the following page, areas highlighted in blue).

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<sup>3</sup> An annexation agreement is in place with the Town of Carolina Shores.



**Map Graphic 7**



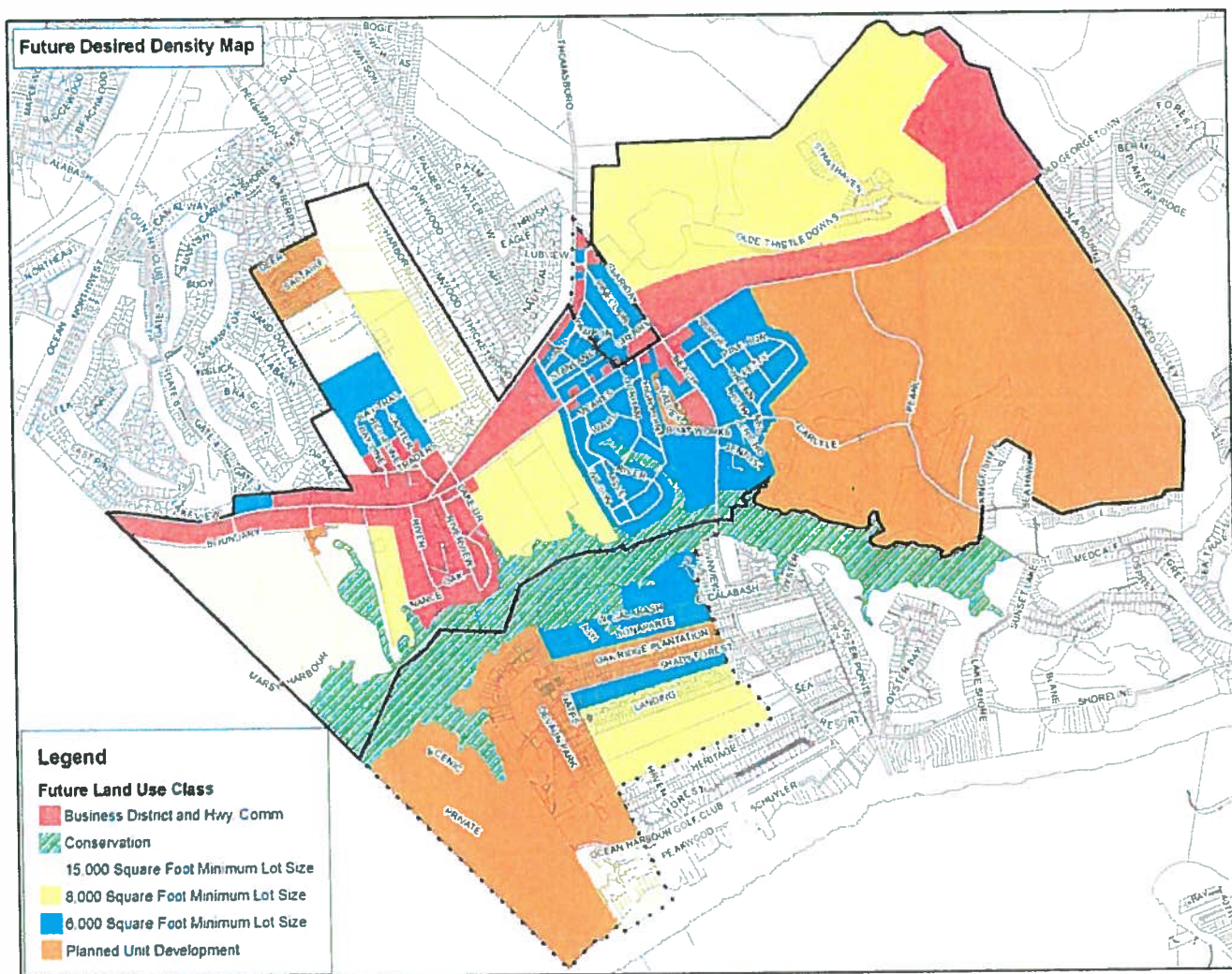
Calabash is in the process (2006) of revising their zoning ordinance and possibly unifying all of its development ordinances to better manage future development. The Town is overall satisfied with the zoning dimensional standards it has in place, and there are no plans or desire to decrease minimum lot sizes or increase height limitations in any individual district.

### **Traditional Residential Areas (Single-Family)**

The Town of Calabash is primarily made up of detached single-family and manufactured housing units, these two types of housing account for 70% of the housing in the Town. According to the 2000 Census on Population and Housing, detached single-family accounts for 56% and detached manufactured housing accounts for 13%. The desired typical lot size is 6,000 square feet (7.2 units per acre) to 8,000 square feet (5.4 units per acre). No housing unit or housing development shall exceed 35 feet in height (not including the 10' exception mentioned earlier). See map graphic 8 following for desired density in residential areas. Note: PUD density will be 3.6 units per acre, unless 30% or more of the development is dedicated open space, whereby the Town may allow higher densities.

The desire of the Town is to continue detached single-family housing as the predominant housing type in areas not designated as a Planned Unit Development (PUD). The Town has also planned that duplex and multi-family will only be allowed as a conditional use in the non-PUD residential areas. Duplex and multi-family will not be allowed in residential areas that are planned for lower density (15,000 square foot minimum lot sizes or approximately 2.9 units per acre). However, due to the flexibility of housing options allowed in Planned Unit Developments, duplex and/or multi-family housing units may increase its share of housing types in Calabash in the next five to ten years.

**Map Graphic 8**



### Planned Unit Developments (PUDs)

Despite not wanting to adjust existing zoning dimensional standards in its traditional residential zones, the Town does desire to allow PUDs in the near future which do not necessarily have pre-determined or standardized lot sizes. The Town plans to match density allowed in PUDs with the



### Map Graphic 9



Part 2 -Section 3: Future Land Use

In areas with 8,000 square feet lot minimums, the Town will manage the density of allowed multi-family developments by requiring 8,000 square feet of lot space for the first unit in each structure used for multi-family housing and an additional 4,000 square feet of lot space for each additional unit in the structure (this equals approximately 9.5 units per acre). This requirement repeats for each structure on the property used for multi-family housing.

In areas with 6,000 square feet lot minimums, the Town will manage the density of allowed multi-family developments by requiring 6,000 square feet of lot space for the first unit in the principal structure and an additional 3,000 square feet of lot space for each additional unit in the principal structure (this equals approximately 13.5 units per acre). This requirement repeats for each structure on the property used for multi-family housing.

The Town's primary policies guiding growth and development in the Residential Areas Category include:

**Public Access Policies - Policy #s 8, 9, 10 - 12, 15**

**Land Use Compatibility Policies – Policy #s 19, 20, 22, 25, 27, 28, 30, 33, 34, 35**

**Infrastructure Carrying Capacity Policies – Policy #s 36 - 40, 41, 44**

**Natural Hazard Area Policies – Policy # 56 - 58**

**Water Quality Policies - Policy #s 67 - 69**

**Local Concern Policies – Policy #s 80, 82, 85, 87, 91, 95**

The Conservation category is intended to preserve and protect fragile estuarine environments from incompatible uses. The Future Land Use Map shows the Calabash River as being the bulk of the conservation area in the Town's jurisdiction, including a few wetland areas adjacent the River. The map graphic below shows the conservation area.

[illegible]

- Fishing
- Shellfishing
- Recreational boating
- Swimming
- Nature study
- Public parks, piers and docks
- Private docks or other water dependent uses if on privately owned land and properly permitted



The minimum lot size for a permitted development activity in areas classified conservation is 5 acres. Public parks, docks and piers and other water dependent uses may be allowed on smaller parcels if 5 acres is unattainable.

The overriding policy consideration for the conservation areas in Calabash is to manage land use and development so as to protect the natural, scenic, and recreational value of these areas.

The Town's primary policies guiding growth and development in the Conservation Category include:

**Public Access Policies - Policy #s 1 – 5, 10, 12, 15**

**Land Use Compatibility Policies – Policy #s 17, 18, 23, 24, 33**

**Infrastructure Carrying Capacity Policies – Policy #s 36, 37**

**Natural Hazard Area Policies – Policy # 55, 56**

**Water Quality Policies - Policy #s 59, 61 – 68, 70**

**Local Concern Policies – Policy #s 73, 74, 78, 96**

#### **(B) The Future Land Use Map**

In addition to the map graphics in this section, desired future land use characteristics can be seen on the Town of Calabash's Future Land Use Map, which is Map 13 in the Map Appendix of this land use plan.

#### **Section 4: Tools for Managing Development**

The Tools for Managing Development Section provides: A) a description of the role the Land Use Plan and its policies and goals shall play in determining development approval; B) a description of the Town's existing development management and regulation program; and C) an Action Implementation Schedule for setting an implementation timeframe for the Town's priority goals.

##### **(A) Role and Status of the Plan**

The Town Land Use Plan is a guiding tool that establishes the desired direction for land use and development in the community. Although the statements and policies in the Land Use Plan do not have the authority of a code or regulation, many state and federal decisions on permitting local actions rest on a determination of consistency with the Town's Land Use Plan. Such state permitting decisions include CAMA major permits (see Introduction of this document) issued by the Division of Coastal Management. The Land Use Plan may be amended if situations arise where the Land Use Plan becomes in conflict with new local, state or federal policy direction (consult NCAC 7B Section.0900 for Amendment Rules). The Land Use Plan shall at a minimum be used for the following:

- The approval of routine and major developments (including redevelopments) shall be consistent with the policy direction and goals of the Land Use Plan.
- Amendments to development related ordinances and creation of new ordinances shall be consistent with the policy direction and goals of the Land Use Plan.
- The approval of capital improvements, and related projects, shall be consistent with the policy direction and goals of the Land Use Plan.
- Town Planning Staff shall consult the Plan and use it as a basis for making recommendations to the Planning and Zoning Board and the Town Commissioners in such actions as development approval and ordinance amendments. If the proposed development or amendment is in conflict with the policy direction or goals of the Land Use Plan, staff shall notify the Planning and Zoning Board and Town Commissioners of the possible inconsistency.

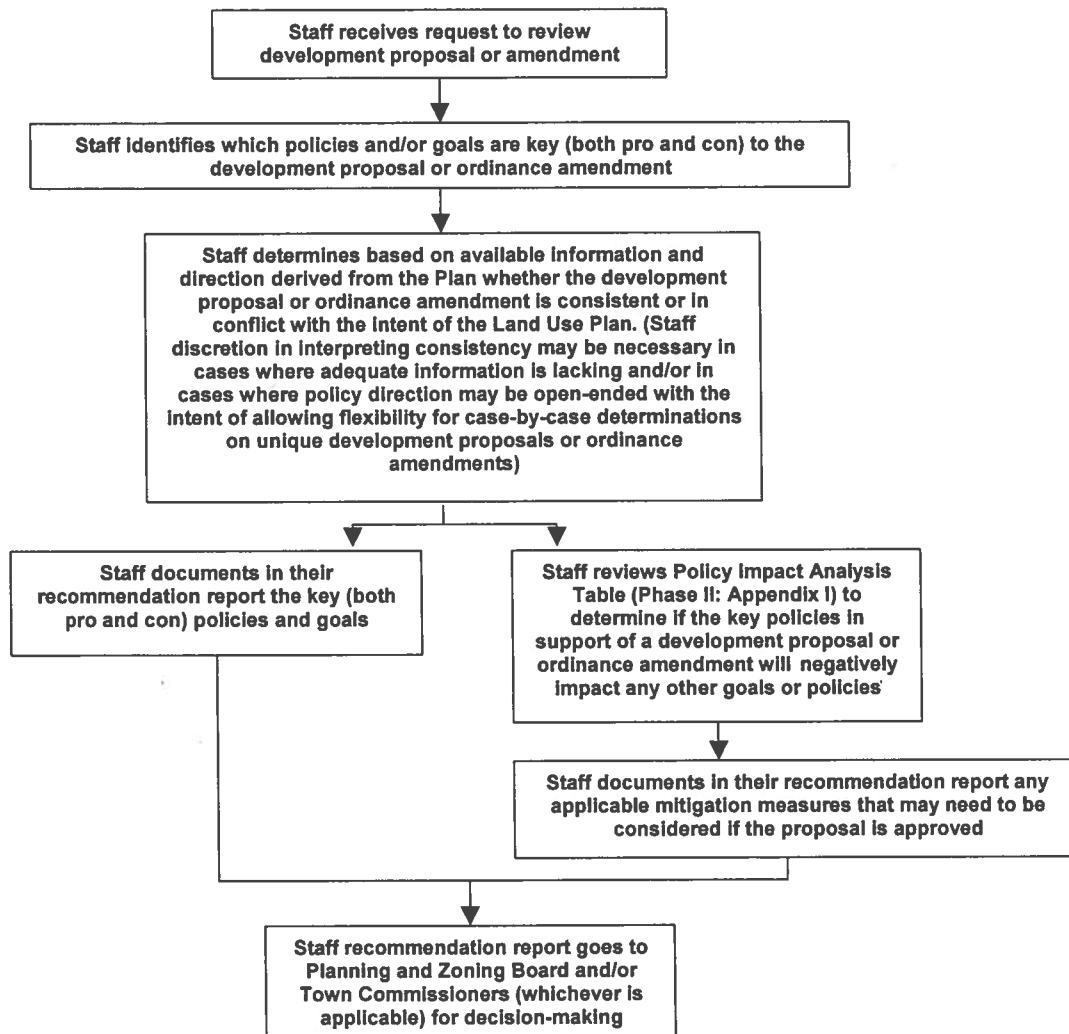
The policy direction and goals of the Land Use Plan are in this land use plan in Phase II: Section 2. A more general policy direction of the Land Use Plan can be found in the Community Vision Statement (Phase I: Section 1(C)).

The Land Use Plan may also be used by:

- **The Public** - The Land Use Plan shall be available to any interested member of the public. The Plan can inform the public of the direction and future of their community and give them a sense of knowing and understanding what is going on. Public knowledge of the goals and policies of the Land Use Plan will also assist the public in forming support or opposition for actions in their community, to act as caretakers of their community.
- **Land Owners and Developers** - The Land Use Plan provides developers and property owners with guidance and expectations on the types of land uses and development that are desired by the community. Knowledge of expectations and possible requirements of development will aid developers and land owners in preparing sound proposals and plans which will be more likely to be approved by Town officials in a more time-efficient manner. The Land Use Plan and its mapping and analysis can also provide landowners and developers with general information that could make them aware of possible capabilities and limitations of their property.
- **State and Federal Permitting Agencies** - The plan and its policies may be used by other state and federal agencies for "consistency review" for permit approval, as well as by the Cape Fear Rural Transportation Planning Organization (RPO) and the Department of Transportation (DOT) for transportation planning purposes.
- **Town Staff** - Town staff, beyond the Administration and Inspections Departments, can use the plan as a tool for evaluating project proposals (such as new parks or bike paths) and for preparing plans for public facilities and infrastructure (such as water/sewer expansion). Town Staff could also use the plan and its policies and goals when preparing its budget requests and recommendations, and make reference to the plan when preparing applications for grants and other assistance.
- **Area Jurisdictions** – Local jurisdictions that may be affected, either positively or negatively, by actions of Calabash can use the plan to understand and predict the intents and purposes behind such actions. Area jurisdictions may also want to coordinate with the Town on achieving certain common goals, or in implementing similar policies. Such common goals could be those found in the annexation agreement between Carolina Shores and Calabash.

## **Staff Flow Chart for Determining Consistency of Development Proposals and Ordinance Amendments with the Land Use Plan**

The following flow chart is an example of the process by which Town Staff may determine consistency of local development and regulatory decisions with the policy direction and goals of the Land Use Plan.



### **(B) Existing Management Program in Calabash**

The Town of Calabash has a range of land use regulatory instruments in place by which to manage land development activity. The Zoning Ordinance, the Subdivision Ordinance, and the Stormwater Ordinance are the principle mechanisms by which land use is regulated. Additionally, the Town has recently adopted a Natural Resource Protection Ordinance to regulate lot clearing, to preserve mature or valuable vegetative cover, and to provide buffers of riparian areas. The Town also has a Flood Damage Prevention Ordinance which provides for land uses designed to mitigate the damages which may be caused by flooding. Other land use related ordinances or management programs that are under consideration include a Unified Development Ordinance, an Architectural



Review Board, a Capital Improvement Plan, and a Landscaping Ordinance. It is through the use of these planning tools that the policies within this Land Use Plan will be implemented. **SEE APPENDIX II** for a table showing how these programs will assist in meeting the Goals and policies of this Land Use Plan.

This Land Use Plan will also be used for consistency review by federal and state permitting agencies. If, for example, a builder wishes to construct a house within an area of environmental concern, the builder will be advised by the Inspections Department that before construction activity may commence the owner must apply for and receive a CAMA permit<sup>5</sup>. If the builder wishes to build something rather small, as is usually the case with a single family dwelling, it is likely the requirement will be for a minor CAMA permit. Minor CAMA permits are issued by the local government. The time requirement for issuance of a CAMA minor permit is minimal. If the project is large, or complicated, or otherwise meets state established criteria, a major CAMA permit will be required. The time requirement for issuance of a CAMA major permit is more extensive and may require as long as six months of agency review before issuance though this is not the current standard. At any rate, whether the permit to be issued is considered "major" or "minor" the project proposed must be consistent with the Land Use Plan. A review for Land Use Plan consistency will be made either by local officials or by state agency staff or by both local and agency staff. Permit requests which are found to be inconsistent with this Land Use Plan will not be issued.

Federal projects proposed for land areas within the Town of Calabash's planning jurisdiction must also be reviewed for consistency with the Land Use Plan<sup>6</sup>. Federal agency review is required for large projects (in excess of 1/3 of an acre) to be constructed within federally protected freshwater wetlands areas. Permits for construction activity in these areas are issued by the U.S. Army Corps of Engineers. Consistency review must also take place in any instances where federal dollars will be spent on proposed projects. The state managed review process for federal facilities or uses, or federally funded activities, is known as the "A-95 review process." The NC Clearinghouse within the NC Department of Administration collects comments on these projects and manages this review.

### **(C) Activity Implementation Schedule**

The Activity Implementation Schedule is a listing of the priority actions the Town has set to accomplish in the planning period of this Land Use Plan (typically 5-6 years). The 'activities' to implement are derived from the goals and policy statements of the Land Use Plan. Activities may be added to the list in the future if situations change or new needs arise. The Activity Implementation Schedule will be used as the benchmark to prepare a CAMA required implementation status report every two years for the life of the plan starting after the Coastal

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<sup>5</sup> As mentioned earlier in this document, CAMA is the acronym for the Coastal Area Management Act. The CAMA created the Coastal Resources Commission (CRC) and it's staff, the Division of Coastal Management. The CRC, which is appointed by the Governor, created rules and regulations, codified in the NC Administrative Code (at 15A NCAC 7H), which govern development activity in those areas deemed AECs (or areas of environmental concern).

<sup>6</sup> This is a requirement whether the project is located within the state area of regulation, and AEC (or area of environmental concern), or not.

Resources Commission certifies the Town Land Use Plan (see North Carolina Administrative Code 15A 7L .0511).

Additionally, ALL POLICIES IN THIS LAND USE PLAN WHICH ARE ADOPTED BY THE TOWN AND CERTIFIED BY THE COASTAL RESOURCES COMMISSION ARE TO BE FOLLOWED AND/OR IMPLEMENTED BY THE TOWN FOR THE LIFE OF THIS LAND USE PLAN. Amendments to the plan may be done if growth and development circumstances, or community preferences in the Town change, but such amendments must be approved by the Town through an official public hearing, and by the Coastal Resources Commission.

### Activity Implementation Table

Action	Management Topic Goal	Responsible Entity	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
<b>Continued Public Participation in Land Use Planning</b>							→
Conduct a revision of its Zoning Ordinance to address its internal consistency and make it more user-friendly. Revision may be part of larger Unified Development Ordinance creation process.	Land Use Compatibility	Administration and Inspection Departments. Planning and Zoning Board	→				
Expand sewer infrastructure to existing developed areas (eliminate septic system use).	Water Quality	Administration, Services and Inspection Departments		→			
Establish a Beautification Committee and/or Architectural Review Board to address nuisance, lighting, signage and landscaping issues.	Local Concern/Land Use Compatibility	Administration and Inspection Departments. Planning and Zoning Board	→	→			
Develop and integrate a Capital Improvements Program (CIP) to prioritize funding for projects such as infrastructure expansion or property acquisition.	Public Access/Local Concern/Land Use Compatibility/Infrastructure Carrying Capacity	Administration and Inspection Departments. Planning and Zoning Board	Under Development	Under Development	Continued Annually	Continued Annually	Continued Annually
Pursue Riverfront Park, Public Parking, Public Access and Bike/Ped path creation in Downtown Riverfront Area. These activities will be part of the Capital Improvement Program funding schedule.	Public Access/Local Concern/Land Use Compatibility	Administration and Inspection Departments. Planning and Zoning Board					→
Activities will require multi-year implementation							

## **Section 5:     Policy Analysis**

The NC Coastal Resources Commission has issued guidance on the preparation of Land Use Plans in the coastal area. This guidance, titled *Technical Manual for Land Use Planning*, requires local governments to analyze their Land Use Plan's policies and recommended actions, as well as the desired characteristics specified in the Future Land Use Section and Future Land Use Map, which are also "policy" statements and are to be followed by the Town. The specific requirements are as follows:

- Examine the consistency of the plan with the management topics;
- Examine the consistency between the Future Land Use Map and the Land Use Plan's requirements; and,
- Analyze the impact of the policies and recommended actions on the management topics specified in the guidance manual.

### **5.1 Consistency of Land Use Plan Policy with Community Goals (Management Topics)**

This analysis is done ensure the Land Use Plan's community goals and policies are consistent with the Coastal Resources Commission's required management topics. The management topics are the categories of local land use and development policies suggested to local governments by the Coastal Resources Commission (CRC). The CRC deems these management goals to be extremely important for the proper use, development, and protection of natural and manmade resources in coastal areas. There are six management topics:

Public Access: The public access policies give municipal guidance on maximizing access opportunities to the shore and on the careful management, and care of these areas;

Land Use Compatibility: Policy considerations here include the preservation of environmental attributes and decisions which will produce the harmonic adaptation of built uses in close proximity to one another. The management of development to minimize impacts on both man-made and natural resources in inherently important in land use compatibility considerations;

Infrastructure Carrying Capacity: The goal of this policy section for Calabash is to ensure that infrastructure is available to support planned development and that if infrastructure is not available or necessary that the land will support development in such a way that human health, safety, and welfare will be protected and so will environmentally fragile areas;

Natural Hazard Areas: Policies here are designed to reduce the vulnerability of the Town of Calabash to natural hazards;

Water Quality: Land Use policies in this section are designed to protect the high quality of local waters; and

Local Areas of Concern: This policy section identifies policies and strategies to address local planning and development goals.

## **(A) Public Access**

The Town of Calabash's goal for public access is **"to optimize public opportunities for recreation through a community system of acquired and (or) purchased parks and park sites, bike paths, ball fields, sidewalks, and access areas providing parking for visitors and residents and leading to the area rivers and creeks and the public trust areas of the Town of Calabash."**

In order to meet this goal the Land Use Plan describes policies which:

- 1) Ensure adequate and open public access opportunities to residents and visitors;
- 2) Reduce conflicts by access area users (residents and visitors) and fully integrate the facilities into Town neighborhoods in a way such as to not disrupt, interfere, or create problems within any neighborhoods; and
- 3) Provide a high quality recreational experience for all.

Each of the policies in the public access policies section of the Land Use Plan has been reviewed and is consistent with both state and local goals. The Town's policies seek to maximize public access, primarily to the downtown waterfront area which will also help meet the Town goal of revitalizing and expanding its downtown riverfront business district. The Town also desires to acquire property in the downtown riverfront (Calabash River) area for a public park, riverwalk and public parking. Town policy is also to preserve the commercial waterfront for open public commerce, and discourage a transition of the waterfront to private residential use. Town policy is also to limit the density and intensity of riverfront residential areas to avoid obstructing views of public trust areas (the Calabash River).

## **(B) Land Use Compatibility**

The Town of Calabash's goal on land use compatibility is as follows: **"Calabash will ensure that future development will be consistent with the historic small town nature of the community. Calabash also desires to ensure the preservation of natural resources and to ensure that any uses of the land and water minimize negative environmental impact and avoid risks to public health, safety and welfare, and will not exceed the capability of the land or man-made features to support such use."**

The Land Use Plan contains policies, which in multiple statements, gives guidance on how the Town will proceed to affect (in some cases) and to maintain their small town charm and natural resources. The concepts contained in the local policy guidance in the plan will help to mitigate the impacts of land development on neighboring property owners, natural resources, and fragile areas. The Calabash Land Use Plan gives policy guidance to the zoning ordinance, subdivision regulations, stormwater and all other ordinances pertaining to land use. Future amendments to these ordinances should consider and remain consistent with Land Use Plan policies. Both the subdivision regulations and the zoning ordinance manage and guide development in such a way that density is limited and the impacts of new development on existing development are mitigated. This is done by the local ordinances provisions for minimum lot size, setbacks, and planned unit developments (SEE THE FUTURE LAND USE SECTION for specific density and intensity preferences). The Flood Damage Prevention Ordinance also mitigates the negative impact of storms.

The Land Use Plan's policies have been reviewed and are consistent with this management goal. The Town's policies limit density and intensity allowable and discourage development in unsuitable areas. Town policy is also to pursue a jurisdiction-wide central sewer system to eliminate the problems associated with septic system use in areas with poorly draining soils. The Town does recognize that a sewer system could lead to increased development pressure, but the Town feels its policies on building height, existing stormwater regulations and new Phase II stormwater requirements, as well as the preferences outlined in the Future Land Use Section, clearly state its intention to manage density and intensity in the upcoming 5 to 10 year planning period, and keep new development and redevelopment in similar scale to existing development.

### **C) Infrastructure Carrying Capacity**

The Town of Calabash's Land Use Plan goal for infrastructure carrying capacity is **"To ensure that public infrastructure systems are properly sized, located and managed such that the excellent quality and productivity of such systems are perpetually available and the systems are in top working order, so as to provide exceptional service to systems users and to protect fragile natural areas."**

The local water and sewer systems are provided to the Town of Calabash through a cooperative agreement (sewer use ordinance) with Brunswick County. The Town of Calabash desire is to have the systems available and to have all residential and commercial structures connected, and to require all future development to connect to the public water system and to the sewage collection and treatment system. Until this becomes possible, Calabash will encourage growth along existing and planned water and sewer system extensions by only approving planned developments which have secured adequate capacity from and connection to County utilities. The Town of Calabash supports county, federal and state cooperative assistance on meeting infrastructure needs in the Town. Infrastructure capacity is finite and requires periodic upgrades in capacity, the Town realizes this and approves only planned development projects which have secured such capacity from the County. If the County rejects a planned development based on limited capacity, the Town will support this evaluation and deny approval of the project. The Town may desire to pursue additional infrastructure capacity outside of County Utilities if County capacity becomes limited, but it has not planned to do so in this planning period (next 5-10 yrs.).

The Land Use Plan's policies have been reviewed and are consistent with this management goal. Town policies state that traffic congestion and parking in the downtown area are top priorities to resolve through consultation with North Carolina DOT and the Rural Transportation Organization. Policies seek to expand alternative transportation in the downtown area by encouraging and/or requiring bike and pedestrian infrastructure (sidewalks or bike lanes). The Town has also conducted a stormwater management plan that identifies and prioritizes needed improvements to the Town's stormwater infrastructure. Town policy is to pursue these improvements during the planning period.

### **(D) Natural Hazards Area**

The Town of Calabash's goal for natural hazards management is **"to conserve and protect wetlands, flood plains, and other natural features for their storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues."**



The Town recognizes the following needs:

- 1) to conserve 404 and coastal wetlands.
- 2) to conserve areas prone to flooding and to participate National Flood Insurance Program (NFIP).
- 3) to protect the public from the threat of natural hazards via land use regulations.
- 4) to develop Calabash in a cooperative way and consistently with agency requirements.
- 5) to protect the public health, safety, and welfare.

Policies within the Land Use Plan address each of these significant items. Other policies deal with hazard mitigation, intergovernmental cooperation, acquisition of properties deemed hazardous. Town policy is to continue to participate in the NFIP, which has recently been carried out by adopting a new flood prevention ordinance which incorporates the new floodplain maps of the North Carolina Floodplain Mapping Program (FIRMs).

#### **(E) Water Quality**

The Town of Calabash's goal for water quality is **"to maintain, protect, and where possible to enhance water quality in the Calabash River, the Intra Coastal Waterway, and all coastal or 404 wetlands, creeks, streams, and estuaries."**

Policies which will guide the Town towards this goal include:

- 1) intergovernmental cooperation;
- 2) eliminating the flooding of roadways;
- 3) use of landscaping and buffers; and
- 4) the continuing clean-up of unsightly and unsafe structures.

Policies in the Land Use Plan are designed to guide the local government to maintaining and possibly improving water quality. The policies in the water quality section of the Land Use Plan have been reviewed and are consistent with the water quality management topic. Possible conflicts with water quality may arise in meeting other Town goals such as increasing parking, sidewalks, and other related impervious surfaces in the downtown riverfront commercial district, but the Town will implement its stormwater ordinance, natural resource protection ordinance and new Phase II stormwater regulations to manage and mitigate stormwater runoff. Currently, all new commercial development and redevelopment requires engineered stormwater retention best management practices. The Town will also pursue the elimination of all septic systems and package treatment plants in the jurisdiction in the planning period, which it is believed will mitigate some water quality problems associated with unwanted discharge from such wastewater systems in areas which are floodprone and have poorly drained soils.

#### **(F) Local Areas of Concern**

The Town of Calabash's goal for local areas of concern is **"to integrate local land use planning concerns (including the need for public access and parking areas in the downtown or river front area of Calabash) with the overall goals of the North Carolina coastal management program and to provide for the protection of economic and environmental resources within the boundaries provided by law through thoughtful and proactive land use planning."**

There are multiple policies within this Land Use Plan section as a guide to the local government. Some of these policies deal with issues which are also pertinent to other management goals. The Land Use Plan user should review this policy section carefully to be sure important local policy guidance is seen. The policies in the Land Use Plan under the section for local areas of concern have been reviewed and are consistent with the stated management goal.

### **(G) Policy Impact Analysis**

The policy impact analysis is intended to identify potential **negative, neutral, or positive** impacts to Management Topic goals on a policy by policy basis. Some policies may have a range of potential impacts such as **neutral-negative** or **neutral-positive**. For example, the degree to which “promoting expansion of commercial businesses” is neutral or negative to water quality goals depends on the degree to which such promotion and expansion occurs and whether it can be mitigated by other courses of action. Policies with the potential for negative or neutral-negative impacts should receive the most attention and forethought when implementing given their expected impacts on other Town goals. The following list defines the impact designations:

- Negative - Implementation of the policy will more than likely have an immediate or long-range negative impact on the Management Topic goals. The policy could conflict with the attainment of other goals.
- Neutral - Implementation of the policy will more than likely not have any impact on the Management Topic goals. The policy will probably not effect the attainment of other goals.
- Positive - Implementation of the policy will more than likely have an immediate or long-range positive impact on the Management Topic goals. The policy could foster the attainment of other goals.
- Neutral-Negative - Implementation of the policy could range from no impact to an immediate or long-range negative impact on the Management Topic goals. The policy may not effect the attainment of other goals if carried-out with other policies or goals in mind, or the policy could conflict with the attainment of other goals if carried-out without mitigation or management activities.
- Neutral-Positive - Implementation of the policy could range from no impact to an immediate or long-range positive impact on the Management Topic goals. The policy may have no effect on the attainment of other goals or the policy could foster the attainment of other goals if actions are coordinated or expanded.

## **(1) Policy Impact Analysis Table**

For simplification, a cross-referenced table (matrix) was used to list impacts of each policy in boxes under each Management Topic (see Appendix I). If a policy has the potential to have a negative impact on a goal or goals of any of the Management Topics, a course of action or policy must be established to mitigate the negative impacts (see Section (G) (2) below).

## **(2) Potential Neutral-Negative Policy Impacts and Mitigation Steps to Minimize Such Impacts**

It is important to note that the following policies contain statements and direction that is intended to reach a specific goal of the Town. However, certain 'side-effects' that may result through implementation of the policies may have the potential for creating negative impacts on the attainment of other Town goals. For instance, the Town goal of increasing public parking will have positive effects for increasing public accessibility to public trust areas, but will also have the potential for negative effects on water quality due to increased impervious surface created by the parking lot. The following identifies the policies with the greatest negative impact potential and are followed by *Mitigation Measures* that refer to other policies or courses of action that can be used to mitigate those negative impacts. Also see Policy Impact Analysis Table in Appendix I for more information.

**Policy 1 :** Potential neutral-negative impact by causing a reduction in natural habitat as a result of public access facilities construction.

Mitigation Measures: Follow water quality resource protection policies 59, 61-66 and Local Concerns policies 72, 74 and 89 which require planning and consideration in achieving the least environmental impact during development.

**Policy 5:** Potential neutral-negative impact by allowing/supporting certain dredging activities to occur in the jurisdiction. Potential negative impact to water quality resulting from allowing dredging activity.

Mitigation Measures: Follow water quality resource protection policies 59, 61-66 and Local Concerns policies 72, 74 and 89 which require planning and consideration in achieving the least environmental impact during development.

**Policies 10, 11 & 12:** Potential neutral-negative impact by causing a reduction in natural habitat and water quality degradation from stormwater runoff as a result of public access facilities construction.

Mitigation Measures: Follow water quality resource protection policies 59, 61-66 and Local Concerns policies 72, 74 and 89 which require planning and consideration in achieving the least environmental impact during development.

**Policy 26:** Potential neutral-negative impact by encouraging more and potentially more intense commercial development adjacent river and marsh front areas.

Mitigation Measures: Follow natural hazards policies 55-58, water quality resource protection policies 59, 61-66 and Local Concerns policies 72, 74 and 89 which require planning and consideration in achieving the least environmental impact during development.

**Policy 60 :** Potential neutral-negative impact by reducing natural habitat and water quality functions of wetlands as a result of construction. Potential neutral-negative impact by increasing infrastructure demand as a result of public access facilities construction. Potential neutral-negative impact by causing floodway obstructions and increased stormwater runoff.

Mitigation Measures: Follow natural hazards policies 55-58, water quality resource protection policies 59, 61-66 and Local Concerns policies 72, 74 and 89 which require planning and consideration in achieving the least environmental impact during development.

**Policy 89:** Potential neutral-negative impact by increasing water quality degradation as a result of intensified waterfront use.

Mitigation Measures: Follow natural hazards policies 55-58, water quality resource protection policies 59, 61-66 and Local Concerns policies 72, 74 and 89 which require planning and consideration in achieving the least environmental impact during development.

## **5.2 Consistency Between Land Use Plan Policy & Future Land Use Map**

The Coastal Resources Commission's guidance, titled *Technical Manual for Land Use Planning*, requires local governments creating a coastal Land Use Plan to analyze their Land Use Plan's policies and to have consistency between Land Use Plan policy guidance and the Future Land Use Map (Map 13 in the Map Appendix). The specific requirements are as follows.

- ~Summarize the residential density and development intensity encouraged by each of the land classifications or designations on the map. (This requirement was met within Part 2 (Phase II), Section 3, in the description of the Future Land Use classification categories.)
- ~Identify any material differences between the development patterns shown on the Future Land Use Map and the development constraints shown on the Environmental Composite Map and the Land Suitability Map.
- ~Describe any material differences between the spatial patterns of land classifications that depend on water and sewer and planned development.
- ~Describe development planned for natural hazard areas, how uses are consistent with associated risks, and the capacity of the evacuation infrastructure. (In Calabash development will continue to occur in the pattern established.)
- ~Describe how future land use classifications and spatial patterns on the map will protect open shellfish waters and restore closed or conditionally closed shellfish waters.

The Town of Calabash is a relatively small Town with traditional development patterns of single family (detached stick-built and manufactured housing) on 6,000 ft<sup>2</sup> to 15,000 ft<sup>2</sup> acre lots, with 8,000ft<sup>2</sup> lots being the preferred Town average, with a centrally located downtown riverfront commercial center. Growth over the last two decades has included more multi-family units, which have resulted from the increased value of land, as well as the expansion of some commercial activity along the major thoroughfares in and out of Town, which is servicing the more vehicle dependent outlying residential areas. Town policy is to limit further expansion of multi-family developments by making such developments require a conditional use permit and undergo a formal public hearing process. Town policy is also to manage growth and development to retain the existing small-town or fishing village characteristic which currently exists. Those characteristics include maintaining a 35 foot building height limit and a predominance of single family and duplex housing on 8,000ft<sup>2</sup> lots. This characteristic also includes retaining the downtown as a commercial district and discouraging an increase in residential uses in that area. The Future Land Use Map and the Future Land Use Section outline specific growth and development characteristics preferred in different areas of the planning jurisdiction.

#### **(A) Residential & Commercial Density**

The land use development pattern depicted on the Future Land Use Map is similar to what is shown on the Existing Land Use and Zoning Maps, meaning the Town is largely satisfied with the existing development pattern and wishes this to continue during the planning period (next 5-10 yrs.). The Future Land Use classifications are zoned appropriately according to the policies within this Land Use Plan. The density requirements within each of the future land use classification categories can be found in Part 2, Section 3, of the Land Use Plan.

Minimum lot sizes for traditional residential lots in the Town of Calabash are 8,000 square feet. Planned Unit Development and multi-family development is also possible on a limited basis according to the Zoning Ordinance, the Town desires that this continue in appropriate areas and as long as infrastructure capacity, such as traffic and stormwater are not overburdened. The minimum lot sizes for commercial properties are as currently enforced by the zoning ordinance and are not expected to be changed in the planning period. These densities are consistent with the historical development patterns of the Town and are consistent with the Town's policies for future growth.

#### **(B) Comparing the Environmental Composite & Land Suitability Maps with the Future Land Use Map**

A comparison of the Environmental Composite Map (Map 8 in the Map Appendix) and the Land Suitability Map (Map 12) shows some differences. The Environmental Composite Map shows nearly the entire Town in Class II (moderate development limitations). This depiction is possible because soils with septic limitations have been omitted due to the Town's expansion of sewer for existing development and the Town's requirement for any new developments to connect to County sewer services. The Land Suitability Analysis Map shows pockets of land as least suitable. These areas are shown as such because they are believed to be (according to the best information available at this time) significant wetlands. A large portion of the upland region of the Town of Calabash away from the Calabash River and Towards Highway 17 is Class I (slight development limitations) and is more highly suited for development.



When each of these maps is compared to the Future Land Use Map, it can be seen that future residential development within the Town of Calabash will occur primarily within areas which are classified by the Environmental Composite Map as Class I or II. The entire Town, with a few minor exceptions is classified in this way. Comparison of the Future Land Use Map to the Land Suitability Map, shows development may occur in areas shown to be of medium or low suitability for development. The development of those areas shown as low suitability is made possible by the future availability of the sewage collection and treatment system. Lands shown as suitable for development must, in each case, be consistent with the current zoning requirements and state and federal regulations. The natural features and properties of each tract (pertaining to wetlands, maritime forest, flood hazard, etc.) are required to be examined for each piece on a case-by-case basis. In addition, some of the vacant large tracts which may contain development limitations are or will be zoned as Planned Unit Developments to allow flexibility in site design and avoid impacts in environmentally sensitive areas.

### **(C) Availability of Water & Sewer to Future Development**

A portion (approaching 40-50%) of the Town of Calabash is served by public water and a wastewater collection and treatment system. These systems are owned and operated by Brunswick County. The Town desires that these amenities become available to all local residents and businesses within the Calabash planning jurisdiction. Future service extensions will be worked out through a mutual agreement with Brunswick County. The spatial patterns of development within the Town of Calabash, as shown on the Future Land Use Map, should not be significantly altered by the availability of this infrastructure based upon the existing boundaries of the planning jurisdiction, and due to the fact that many of the planned developments for the vacant land in the existing Town limits have largely already assured water and sewer connection and capacity from the County. If the development does not have capacity assured, the Town will not approve the development or withhold required permits. Future expansion of the Town jurisdiction will likely be of future planned developments in the unincorporated areas surrounding the Town. The future of these developments, and whether the Town will annex those developments, is based upon the County's capacity for water and sewer. The Town will not annex future developments if they do not have water and sewer infrastructure, and assured infrastructure capacity, from the County.

### **(D) Natural Hazards**

The Town of Calabash is located in an area which is subject to development limitations due to natural hazards. Because of the Town's geographic location along the Calabash River, a portion of the community is located in a natural hazard area. These areas are shown on the Flood Zone Map (Map 3) and the Storm Surge Map (Map 4) in the Map Appendix. The projected future use of currently vacant properties is consistent with risks faced by current residents and business owners. New residents who will come as a result of development will face no additional risks. Current risks are believed to be mitigated by existing ordinances and state and federal building regulations. Calabash does not believe natural hazards will drastically affect development activity in the Town. Development will continue in locations where vacant land is available according to local requirements (Flood Damage Prevention and Stormwater Ordinances) and established patterns.

## **(E) Protecting Area Waters**

It is possible that future development activity will have impacts on the waters within and adjacent to the Town of Calabash. Calabash is planning to avoid negative impacts by the following measures:

- Supplementing and exceeding state regulations regarding stormwater management. The current stormwater ordinance exceeds state standards in the following ways:
  - any commercial development (includes developments of any lot size). This requirement exceeds state stormwater regulations.
  - any subdivision of a parcel into 6 or more residential lots (could include residential development under one acre). This requirement exceeds state stormwater regulations.
  - any development that increases the original grade of the lot by 4 inches or more (could include residential development under one acre). This requirement exceeds state stormwater regulations.
- New Phase II Stormwater requirements will be incorporated into the existing stormwater ordinance, the more strict regulation will apply.
- Prioritizing stormwater improvement projects identified through a 2002/2003 Stormwater Management Study to divert, retain, detain and/or increase treatment of stormwater runoff which has been able to enter surface waters via piped outfalls put in place during the Town's development over the last few decades.
- Requiring buffering of 35' of river/riparian areas.

## **Section 6: Conclusion**

This Land Use Plan contains the adopted courses of action and policies for the Town of Calabash for the next five to ten year planning period, and beyond if an update is not conducted within 10 years. The intent of the policies and actions in this plan are expected to be followed by current and future elected officials and Town staff. Any public decisions regarding growth and development (e.g. re-zonings, land use related ordinance revisions, conditional use permits, capital improvement projects, public grants, etc.) by Town officials are to remain consistent with the policies, goals and objectives in this plan. To allow flexibility if circumstances or community preferences change, the Land Use Plan can be updated or amended. Current Land Use Plan updates are conducted through a grant from the Division of Coastal Management and are on a seven to ten year cycle, which is primarily determined by funding availability. The Town may undertake an amendment of the Land Use Plan at any time, but must follow the regulations found in North Carolina Administrative Code Title 15A, Chapter 7, Subchapter 7B, Section .0900-.0901.

# Appendix

**Appendix I: Policy Impact Analysis Table**

Policy Impact Analysis: Indicates Whether Policy Has a Negative, Neutral or Positive Impact on The Management Topic Goals						
Management Topics	Public Access	Land Use Compatibility	Infrastructure	Natural Hazards	Water Quality	Local Concerns
	More Planned Access Locations Upgrades to Existing Access Locations	Reduction in Habitat Loss and Fragmentation Related to Impacts of Land Use and Development Reduction of Water Resource and Water Quality Degradation	Water, Sewer and Other Key Community Facilities and Services Being Available in Required Locations at Support Planned Community Growth and Development Patterns	Land Uses and Development Patterns That Reduce Vulnerability to Natural Hazards Land Uses and Development Patterns That Take Into Account the Existing and Planned Capacity of Evacuation Infrastructure	Land Use and Development Criteria and Measures That Abate Impacts That Degrade Water Quality	Policies That Address Local Concerns and Promote Activities such as Economic Revitalization, Preserving Scenic Areas, Increasing Public Parking, and Promoting Family-Oriented Business.  Local Concern Policies Should be Consistent With Other Policies and the Goals of the Management Topics.
<b>LUP Policies: Public Access</b>						
Policy 1 Boat Launches, Wet & Dry Marinas	Positive	Neutral-Negative Mitigation: See policies 59, 61 – 66, 72, 74, 89	Neutral	Neutral-Negative Mitigation: See policies 55-58	Neutral-Negative Mitigation: See policies 59, 66-69, 72, 74, 89	Positive
Policy 2 Impdmnts To Public Trust	Positive	Neutral	Neutral	Neutral	Neutral	Positive
Policy 3 Imprvmnts Allowing Boating Access	Positive	Neutral	Neutral	Neutral-Negative Mitigation: See policies 55-58	Neutral-Negative Mitigation: See policies 59, 66-69, 72, 89	Positive
Policy 4 Limited Uses in Public Trust Areas	Positive	Neutral	Neutral	Neutral	Neutral	Positive
Policy 5 Dredging to Expand Comm. Fishing	Neutral-Positive	Neutral-Negative Mitigation: See policies 59, 61 – 66, 72, 74, 89	Neutral	Neutral	Neutral-Negative Mitigation: See policies 59, 61 – 66, 72, 74, 89	Positive
Policy 6 Transpo. & Commnty. Facilities	Positive	Neutral-Positive	Neutral-Positive	Neutral	Neutral	Positive
Policy 7 Bicycle Improvements	Positive	Neutral-Positive	Neutral	Neutral-Positive	Neutral-Positive	Positive
Policy 8 Transportation System	Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Positive
Policy 9 Acquisition of Land	Positive	Positive	Positive	Positive	Positive	Positive
Policy 10 Public Axs. to Public Lands and Waters	Positive	Neutral-Positive	Neutral	Neutral	Neutral-Negative Mitigation: See policies 59, 66-69, 72, 74, 89	Positive
Policy 11 Recreational Improvements	Positive	Neutral-Positive	Neutral	Neutral-Positive	Neutral-Negative Mitigation: See policies 59, 66-69, 72, 89	Positive
Policy 12 Parking and Public Access	Positive	Neutral-Positive	Positive	Neutral	Neutral-Negative Mitigation: See policies 66-69, 72, 74, 89	Positive



Management Topics	Public Access	Land Use Compatibility	Infrastructure	Natural Hazards	Water Quality	Local Concerns
	More Planned Access Locations Upgrades to Existing Access Locations	Reduction in Habitat Loss and Fragmentation Related to Impacts of Land Use and Development Reduction of Water Resource and Water Quality Degradation	Water, Sewer and Other Key Community Facilities and Services Being Available in Required Locations at Adequate Capacities to Support Planned Community Growth and Development Patterns	Land Uses and Development Patterns That Reduce Vulnerability to Natural Hazards Land Uses and Development Patterns That Take Into Account the Existing and Planned Capacity of Evacuation Infrastructure	Land Use and Development Criteria and Measures That Abate Impacts That Degrade Water Quality	Policies That Address Local Concerns and Promote Activities such as Economic Revitalization, Preserving Scenic Areas, Increasing Public Parking, and Promoting Family-Oriented Business.  Local Concern Policies Should be Consistent With Other Policies and the Goals of the Management Topics.
Policy 13 More Beautiful Calabash	Positive	Positive	Positive	Positive	Positive	Positive
Policy 14 Traffic Flow in Downtown	Positive	Positive	Positive	Neutral-Positive	Neutral-Negative Mitigation: See policies 66-69, 72, 89	Positive
Policy 15 Creation of a Riverwalk	Positive	Positive	Positive	Neutral-Positive	Neutral-Positive	Positive
Policy 16 Public Park in Downtown Area	Positive	Positive	Positive	Positive	Positive	Positive

Management Topic	Public Access	Land Use Compatibility	Infrastructure	Natural Hazards	Water Quality	Local Concerns
	More Planned Access Locations  Upgrades to Existing Access Locations	Reduction in Habitat Loss and Fragmentation Related to Impacts of Land Use and Development  Reduction of Water Resource and Water Quality Degradation	Water, Sewer and Other Key Community Facilities and Services Being Available in Required Locations to Support Planned Community Growth and Development Patterns	Land Uses and Development Patterns That Reduce Vulnerability to Natural Hazards  Land Uses and Development Patterns That Take Into Account the Existing and Planned Capacity of Evacuation Infrastructure	Land Use and Development Criteria and Measures That Abate Impacts That Degrade Water Quality	Policies That Address Local Concerns and Promote Activities such as Economic Revitalization, Preserving Scenic Areas, Increasing Public Parking, and Promoting Family-Oriented Business.  Local Concern Policies Should be Consistent With Other Policies and the Goals of the Management Topics.
LUP Policies: Land Use Compatibility						
Policy 17 Water Dependent Uses	Positive	Positive	Positive	Positive	Positive	Positive
Policy 18 Uses Within Estuarine Shoreline	Positive	Positive	Positive	Neutral-Positive	Neutral-Positive	Positive
Policy 19 Tree Preservation	Neutral	Positive	Positive	Positive	Positive	Positive
Policy 20 General Policy on Limiting Impacts of Growth	Positive	Positive	Positive	Positive	Positive	Positive
Policy 21 Ongoing Land Use Planning	Positive	Positive	Positive	Positive	Positive	Positive
Policy 22 Building Height	Neutral	Positive	Positive	Positive	Positive	Positive
Policy 23 Development Within AECs	Neutral-Positive	Positive	Positive	Positive	Positive	Positive
Policy 24 Industrial Dev. Not Allowed in AEC	Neutral-Positive	Positive	Positive	Positive	Positive	Positive
Policy 25 General Policy on Residential Development	Neutral	Neutral-Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive

Management Topics	Public Access	Land Use Compatibility	Infrastructure	Natural Hazards	Water Quality	Local Concerns
	More Planned Access Locations  Upgrades to Existing Access Locations	Reduction in Habitat Loss and Fragmentation Related to Impacts of Land Use and Development  Reduction of Water Resource and Water Quality Degradation	Water, Sewer and Other Key Community Facilities and Services Being Available in Required Locations at Support Planned Community Growth and Development Patterns	Land Uses and Development Patterns That Reduce Vulnerability to Natural Hazards  Land Uses and Development Patterns That Take Into Account the Existing and Planned Capacity of Evacuation Infrastructure	Land Use and Development Criteria and Measures That Abate Impacts That Degrade Water Quality	Policies That Address Local Concerns and Promote Activities such as Economic Revitalization, Preserving Scenic Areas, Increasing Public Parking, and Promoting Family-Oriented Business.  Local Concern Policies Should be Consistent With Other Policies and the Goals of the Management Topics.
Policy 26 General Policy on Commercial Development	Neutral-Positive	Neutral	Neutral-Positive	Neutral-Negative Mitigation: See policies 55 - 59	Neutral-Negative Mitigation: See policies 66-69, 72, 89	Positive
Policy 27 Maintaining Fishing Village Character	Neutral	Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Positive
Policy 28 Redevelopment Activity	Neutral	Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Positive
Policy 29 Review and Revision of Land Use Ords.	Neutral	Positive	Positive	Positive	Positive	Positive
Policy 30 Calabash Will Create Landscape Ord.	Neutral	Positive	Positive	Positive	Positive	Neutral
Policy 31 ETJ	Neutral	Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Positive
Policy 32 Annexation	Neutral	Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Positive
Policy 33 Maintenance of River View	Neutral-Positive	Positive	Positive	Positive	Positive	Positive
Policy 34 Nuisance & Junk Regs.	Neutral	Positive	Neutral	Neutral-Positive	Neutral-Positive	Positive
Policy 35 Subdivisions will Be Built With Infra	Neutral	Positive	Positive	Positive	Positive	Positive

Management Topics	Public Access	Land Use Compatibility	Infrastructure	Natural Hazards	Water Quality	Local Concerns
	More Planned Access Locations Upgrades to Existing Access Locations	Reduction in Habitat Loss and Fragmentation Related to Impacts of Land Use and Development Reduction of Water Resource and Water Quality Degradation	Water, Sewer and Other Key Community Facilities and Services Being Available in Required Locations at Support Planned Community Growth and Development Patterns	Land Uses and Development Patterns That Reduce Vulnerability to Natural Hazards Land Uses and Development Patterns That Take Into Account the Existing and Planned Capacity of Evacuation Infrastructure	Land Use and Development Criteria and Measures That Abate Impacts That Degrade Water Quality	Policies That Address Local Concerns and Promote Activities such as Economic Revitalization, Preserving Scenic Areas, Increasing Public Parking, and Promoting Family-Oriented Business.  Local Concern Policies Should be Consistent With Other Policies and the Goals of the Management Topics.
<b>LUP Policies:</b> <b>Infrastructure</b> <b>Carrying Capacity</b>						
Policy 36 Central Sewer System	Neutral	Positive	Positive	Positive	Positive	Positive
Policy 37 Septic Use	Neutral	Positive	Positive	Positive	Neutral-Negative Mitigation: See policy 36	Positive
Policy 38 Package Treatment Plants	Neutral	Neutral-Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Positive
Policy 39 Public Services	Neutral	Positive	Positive	Positive	Positive	Positive
Policy 40 Assmnt. Of Infra. Capacity	Neutral	Positive	Positive	Positive	Positive	Positive
Policy 41 Dev. In Hzrd. Areas.	Neutral	Positive	Positive	Positive	Positive	Positive
Policy 42 Financing Infra.	Neutral	Positive	Positive	Positive	Positive	Positive
Policy 43 Fire, Police and Rescue Serv.	Neutral	Positive	Positive	Positive	Neutral	Positive
Policy 44 Imprvmt. Of Stormwater Mngmnt.	Neutral	Positive	Positive	Positive	Positive	Positive
Policy 45 Regional Bicycle System	Positive	Positive	Positive	Positive	Positive	Positive
Policy 46 Replacement of Storm Damaged Utilities	Neutral	Positive	Positive	Positive	Positive	Neutral-Positive
Policy 47 Private Road Repair	Neutral	Neutral	Neutral-Positive	Neutral	Neutral	Neutral
Policy 48 Cooperation with State Agency Stormwater Regs	Neutral	Neutral	Neutral-Positive	Neutral-Positive	Neutral	Positive
Policy 49 Timing of Infra Systems Expansion	Neutral	Positive	Positive	Positive	Positive	Positive

Policy 50 Providing Street Lights	Neutral	Positive	Positive	Neutral	Neutral	Positive
Policy 51 Transpo. Problems	Neutral	Positive	Positive	Positive	Neutral	Positive
Policy 52 Road Maintenance & Repair	Neutral	Positive	Positive	Positive	Positive	Positive
Policy 53 Econ. Dev. & Investmnt. In Infra.	Neutral	Neutral-Negative Mitigation: See policies 20 and 26	Neutral	Neutral-Positive	Neutral	Neutral-Positive
Policy 54 Use of Eminent Domain	Neutral- Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive

Policy Impact Analysis: Indicates Whether Policy Has a Negative, Neutral or Positive Impact on The Management Topic Goals						
Management Topics	Public Access	Land Use Compatibility	Infrastructure	Natural Hazards	Water Quality	Local Concerns
	More Planned Access Locations  Upgrades to Existing Access Locations	Reduction in Habitat Loss and Fragmentation Related to Impacts of Land Use and Development  Reduction of Water Resource and Water Quality Degradation	Water, Sewer and Other Key Community Facilities and Services Being Available in Required Locations at Support Planned Community Growth and Development Patterns	Land Uses and Development Patterns That Reduce Vulnerability to Natural Hazards  Land Uses and Development Patterns That Take Into Account the Existing and Planned Capacity of Evacuation Infrastructure	Land Use and Development Criteria and Measures That Abate Impacts That Degrade Water Quality	Policies That Address Local Concerns and Promote Activities such as Economic Revitalization, Preserving Scenic Areas, Increasing Public Parking, and Promoting Family-Oriented Business.  Local Concern Policies Should be Consistent With Other Policies and the Goals of the Management Topics.
<b>LUP Policies: Natural Hazards Areas</b>						
Policy 55 Development in Coastal Wetlands	Neutral-Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Positive
Policy 56 Const. Within the Flood Zone	Neutral-Positive	Positive	Neutral	Positive	Positive	Positive
Policy 57 Minimizing Hurricane Threats	Neutral-Positive	Positive	Positive	Positive	Positive	Positive
Policy 58 Reconst. After Storm Event	Neutral-Positive	Positive	Neutral	Positive	Neutral-Positive	Positive



Management Topics	Public Access	Land Use Compatibility	Infrastructure	Natural Hazards	Water Quality	Local Concerns
	More Planned Access Locations Upgrades to Existing Access Locations	Reduction in Habitat Loss and Fragmentation Related to Impacts of Land Use and Development Reduction of Water Resource and Water Quality Degradation	Water, Sewer and Other Key Community Facilities and Services Being Available in Required Locations at Adequate Capacities to Support Planned Community Growth and Development Patterns	Land Uses and Development Patterns That Reduce Vulnerability to Natural Hazards Land Uses and Development Patterns That Take Into Account the Existing and Planned Capacity of Evacuation Infrastructure	Land Use and Development Criteria and Measures That Abate Impacts That Degrade Water Quality	Policies That Address Local Concerns and Promote Activities such as Economic Revitalization, Preserving Scenic Areas, Increasing Public Parking, and Promoting Family-Oriented Business.  Local Concern Policies Should be Consistent With Other Policies and the Goals of the Management Topics.
<b>LUP Policies: Water Quality</b>						
Policy 59 Dev. In Coastal Wetlands	Positive	Positive	Positive	Positive	Positive	Positive
Policy 60 Roads in Wetlands	Neutral	Neutral-Negative Mitigation: See policy 48, 55-56, 63, 65, 67-69, 74	Neutral	Neutral-Negative Mitigation: See policy 55-56, 65, 67-69	Negative Mitigation: See policy 48, 55-56, 63, 65, 67-69, 74	Positive
Policy 61 Promotion of Conservation of Local Water Quality	Positive	Positive	Positive	Positive	Positive	Positive
Policy 62 Estuarine Productivity	Positive	Positive	Positive	Positive	Positive	Positive
Policy 63 Estuarine Shoreline	Positive	Positive	Positive	Positive	Positive	Positive
Policy 64 Uses Within Public Trust Areas	Positive	Positive	Positive	Positive	Positive	Positive
Policy 65 Protection of Freshwater Wetlands	Positive	Positive	Positive	Positive	Positive	Positive
Policy 66 Shellfish and Stormwater Mngmnt.	Positive	Positive	Positive	Positive	Positive	Positive
Policy 67 Improved Stormwater. Regs	Positive	Positive	Positive	Positive	Positive	Positive
Policy 68 Stormwater Planning	Positive	Positive	Positive	Positive	Positive	Positive
Policy 69 Use of Pervious and Semi-pervious Materials	Positive	Positive	Positive	Positive	Positive	Positive
Policy 70 Centralized Sewer	Neutral	Neutral-Positive	Neutral-Positive	Positive	Neutral-Positive	Positive
Policy 71 Maint. Drainage System	Positive	Positive	Positive	Positive	Positive	Positive
Policy 72 Fish Habitat Prot.	Positive	Positive	Positive	Positive	Positive	Positive

Management Topics	Public Access	Land Use Compatibility	Infrastructure	Natural Hazards	Water Quality	Local Concerns
	More Planned Access Locations Upgrades to Existing Access Locations	Reduction in Habitat Loss and Fragmentation Related to Impacts of Land Use and Development Reduction of Water Resource and Water Quality Degradation	Water, Sewer and Other Key Community Facilities and Services Being Available in Required Locations at Adequate Capacities to Support Planned Community Growth and Development Patterns	Land Uses and Development Patterns That Reduce Vulnerability to Natural Hazards Land Uses and Development Patterns That Take Into Account the Existing and Planned Capacity of Evacuation Infrastructure	Land Use and Development Criteria and Measures That Abate Impacts That Degrade Water Quality	Policies That Address Local Concerns and Promote Activities such as Economic Revitalization, Preserving Scenic Areas, Increasing Public Parking, and Promoting Family-Oriented Business. Local Concern Policies Should be Consistent With Other Policies and the Goals of the Management Topics.
<b>Land Use Plan Policies: Local Concerns</b>						
Policy 73 Floating Homes Not Allowed	Positive	Positive	Positive	Positive	Positive	Positive
Policy 74 Projects Not Allowed	Positive	Positive	Positive	Positive	Positive	Positive
Policy 75 Architect. Resources	Neutral	Neutral-Positive	Neutral	Positive	Neutral	Positive
Policy 76 Stabiliz. Building Foundations	Neutral	Neutral-Positive	Neutral	Positive	Neutral-Positive	Positive
Policy 77 Prot. Of Surface and Ground Water	Neutral	Positive	Positive	Positive	Positive	Positive
Policy 78 Enhancing Sport Fishing	Positive	Positive	Positive	Positive	Positive	Positive
Policy 79 Occupancy Tax	Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Positive
Policy 80 Citizen Part.	Positive	Positive	Positive	Positive	Positive	Positive
Policy 81 Emergency Evacuation	Neutral	Neutral-Positive	Neutral-Positive	Positive	Neutral-Positive	Positive
Policy 82 Building Following a Storm	Neutral	Positive	Neutral-Positive	Positive	Positive	Positive
Policy 83 Comp. Land Use Planning	Positive	Positive	Positive	Positive	Positive	Positive
Policy 84 Mosquito Control	Neutral	Positive	Neutral-Positive	Neutral-Positive	Positive	Positive
Policy 85 Nuisances	Neutral	Positive	Neutral	Positive	Positive	Positive
Policy 86 Updating Local Ords.	Positive	Positive	Positive	Positive	Positive	Positive
Policy 87 Bike and Ped.	Positive	Positive	Positive	Positive	Positive	Positive
Policy 88 Traffic Lights	Positive	Positive	Positive	Neutral-Positive	Neutral	Positive

Policy 89 Pres. Commercial Wtrfrnt.	Positive	Positive	Neutral-Positive	Mitigation. See policies 55-56	Neutral-Negative Mitigation: See policies 66-69, 72, 74, 89	Positive
Policy 90 Amending LUP	Positive	Positive	Positive	Positive	Positive	Positive
Policy 91 Quality of Life	Positive	Positive	Positive	Positive	Positive	Positive
Policy 92 Land Use Decision Consistency	Positive	Positive	Positive	Positive	Positive	Positive
Policy 93 Land Use Decisions and Day Visitors	Positive	Positive	Positive	Positive	Neutral-Negative Mitigation: See policies 66-69, 72, 74	Positive
Policy 94 Parking and Access	Positive	Positive	Positive	Positive	Positive	Positive
Policy 95 Sidewalks are Desired	Positive	Positive	Positive	Positive	Positive	Positive
Policy 96 Balancing Growth and Environmental Protection	Positive	Positive	Positive	Positive	Positive	Positive

## Appendix II: Existing Management Program in Implementing Goals and Policies of the Land Use Plan

Existing Management Program	Public Access	Land Use Compatibility	Infrastructure	Natural Hazards	Water Quality	Local Concerns
	More Planned Access Locations  Upgrades to Existing Access Locations	Reduction in Habitat Loss and Fragmentation Related to Impacts of Land Use and Development  Reduction of Water Resource and Water Quality Degradation	Water, Sewer and Other Key Community Facilities and Services Being Available in Required Locations at Adequate Capacities to Support Planned Community Growth and Development Patterns	Land Uses and Development Patterns That Reduce Vulnerability to Natural Hazards  Land Uses and Development Patterns That Take Into Account the Existing and Planned Capacity of Evacuation Infrastructure	Land Use and Development Criteria and Measures That Abate Impacts That Degrade Water Quality	Policies That Address Local Concerns and Promote Activities such as Economic Revitalization, Preserving Scenic Areas, Increasing Public Parking, and Promoting Family-Oriented Business.  Local Concern Policies Should be Consistent With Other Policies and the Goals of the Management Topics.
<b>Ordinances/Regulations</b>						
Zoning Ordinance <ul style="list-style-type: none"> <li>• Code</li> <li>• Conditional</li> <li>• Use Permit</li> <li>• Planned Unit Developments</li> </ul>	CUP process allows for more Public Parking, Bike and Ped. interconnectivity.	Density and intensity standards in traditional residential areas provide less impact on habitat. MF only allowable through CUP review process and not as permitted right.	Developer pays for infrastructure improvements in developing un-served areas. If infra. not available from County Utilities, project must be scaled back or cancelled	Zoning in coordination with the Flood Prevention Ordinance require structural elevations or flood-proofing and other development standards in floodways.	PUD allowance enables better site design to avoid impacts on wetlands and other sensitive areas.	Zoning enables the planning and management of commercial areas for the furthering of Town economic revitalization and the promotion of family-oriented businesses like restaurants and tourist retail. Building Heights are set at 35' for habitable space and in some areas up to 10' for additional roof and ornamental features.
Subdivision Regulations	Bike and Pedestrian interconnectivity	Clustering within PUDs to avoid wetland loss and to maximize open space.	Developer pays for infrastructure improvements in developing un-served areas.		Clustering of PUDs to avoid wetland loss and to maximize open space.	Subdivision regulations enable enforcement of planning and management standards with regard to the unit type, number and size of developments that are preferable to the community.
Flood Prevention Ordinance	Ensures intense and dense development will be mitigated or prohibited in flood prone areas.			Requirements for building standards and other floodway restrictions will lessen damage from storm and flooding effects.	Requirements for building standards and other floodway restrictions will lessen water quality impacts from stormwater runoff.	Public and private property development is managed to minimize the effects of storm damage.
Landscape Ordinance  Tree Preservation Ord.  Natural Resource Protection Ordinance	Preservation and restoration of native and/or "valuable" vegetation and tree canopy.	Preservation and restoration of native and/or "valuable" vegetation and tree canopy.	Requirements for increased native and drought resistant vegetation will lessen water demand.  Requirements for increased vegetative buffers (35') and corridors will lessen stormwater runoff effects.	Requirements for increased vegetative buffers (35') and corridors will lessen stormwater runoff effects.  Increased tree canopies may help reduce wind damage.	Requirements for increased vegetative buffers and corridors will lessen stormwater runoff effects.	Scenic views and aesthetically pleasing developments can be achieved through enforcement of landscaping requirements.

<b>Ordinances/Regulations Cont'd</b>	<b>Public Access</b>	<b>Land Use Compatibility</b>	<b>Infrastructure</b>	<b>Natural Hazards</b>	<b>Water Quality</b>	<b>Local Concerns</b>
CAMA Local Permitting Officer Authority	Ensures no AECs are encroached upon as part of development, including public trust areas.	Ensures no AECs are encroached upon as part of development including coastal wetlands and estuarine shorelines.		Most AECs have hazard mitigation functions such as barrier dunes to resist storm surge and erosion. Proper management of AECs can ensure a reduction in natural hazard's damaging effects.	AECs serve functions that preserve and protect water quality and estuarine habitat. Local CAMA permitting assists in properly managing the AECs.	Areas of Environmental Concern (AECs) are typically associated with the recreational and scenic use characteristics that are valued by the community. Preservation and protection of AECs can ensure repeat visitation among tourists.
Building Code (State Building Code) • Minimum • Housing Standards • Abandon • Structures Standards • Fire • Prevention Code				Building and other structural soundness related codes require standards for resisting wind and other related natural hazard damage.		Enforcement of building codes can provide a storm resistant housing stock that can lessen collateral damage potential, lessen storm clean-up costs, and expedite recovery and re-entry to the community after a storm.  Community insurance rates can also be reduced through enforcement of building codes.
Sewer Use Ordinance			Ensures proper public and private use of the Town wastewater treatment system.		Mandatory hook-up to wastewater treatment system for new developments avoids surface water quality degradation associated with septic system use.	Intended to ensure proper management of the County's wastewater treatment system, which the Town utilizes, to provide adequate services to existing development as well as providing adequate service to future development.
Stormwater Management Ordinance		Stormwater Best Management Practices can include provisions for vegetated buffers and other natural habitat to act as stormwater filtration. Applies to lots under one acre and all commercial development		Enforcing standards for on-site retention of stormwater and proper management of stormwater infrastructure can assist in preventing community flooding.	Requirements for developments stormwater retention and treatment will lessen surface water quality degradation from stormwater runoff.	Reduction in flooding and surface water quality degradation furthers the Town's appeal to tourism and to quality of life for residents, and providing primary fish nursery areas.



<b>Town Plans</b>	<b>Public Access</b>	<b>Land Use Compatibility</b>	<b>Infrastructure</b>	<b>Natural Hazards</b>	<b>Water Quality</b>	<b>Local Concerns</b>
CAMA Land Use Plan	Policies and goals further the expansion of public access by actions such as identification of land with public access site potential	Policies and goals set desired development patterns that seek to retain open space.	Policies and goals set direction for the expansion of Town infrastructure such as water and sewer.	Policies and goals establish the need for addressing increased development impacts on evacuation and other safety-related issues.	Policies and goals seek to protect wetlands and address stormwater runoff issues related to increased development.	The Land Use Plan is intended to establish the Town's goals and provide courses of action for reaching those goals.
Rural Transportation Planning Organization - Long-Range Transportation Plan (includes North Carolina DOT TIP Projects)			Recommendations of the study provide courses of action for resolving traffic and congestion, as well as identify any non-municipal street systems in need of improvement.			Town goals of relieving traffic congestion and increasing pedestrian accessibility in the downtown area are addressed as part of the planning process.
Hazard Mitigation Plan				The plan identifies the Town vulnerability to hazards as well as recommends courses of action for managing events such as hurricane evacuation.		Town government understanding of vulnerability, as well as public outreach, can assist in mitigating potential monetary and human losses to storms and other events.
Stormwater Management Plan		Identifies and prioritizes areas in need of improvement to mitigate flooding.	Provides courses of action for improvements in the Town's existing stormwater infrastructure.	Identifies and prioritizes areas in need of improvement to mitigate flooding.	Reduce flooding and water quality impacts from untreated and unmanaged stormwater runoff.	Reduce flooding and water quality impacts from untreated and unmanaged stormwater runoff.
Capital Improvements Program (To be Developed)	To include plans for property acquisition for parks, riverwalks, and parking.		To include provision of sewer to all already developed areas in the Town Limits.		To include removal of septic and package treatment plants in Town Limits.	

# **Citizen Participation Plan**

## **Town of Calabash**

### **Land Use Plan**

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This Citizen Participation Plan has been prepared for the Town of Calabash to provide residents and property owners of the Town with a range of opportunities to participate in the process of developing the Town's Land Use Plan (LUP). The Citizen Participation Plan has the following objectives:

1. To share information about the Town of Calabash planning process and its requirements;
2. To increase the community's understanding of the impact that land use and development issues have on quality of life;
3. To provide opportunities for the residents and property owners to participate in the identification and creation of land use and development policies and to assess the impact of the policies on the community; and
4. To provide a forum where all economic, social, ethnic and cultural viewpoints will be considered throughout Land Use Plan production.

This Citizen Participation Plan has been designed to meet the requirements of the joint agreement between the Town of Calabash and the NC Department of Environment & Natural Resources/Division of Coastal Management planning grant awarded to the Town. Key elements are described below:

#### **Principal Responsible Local Board**

By designation of the Town Council the principle local Board responsible for supervision of the Phase II planning process will be the Town of Calabash Planning & Zoning Board. The Calabash Planning & Zoning Board, which is appointed by the Town Council, is composed entirely of residents of the Town.

The Planning & Zoning Board is responsible for providing overall leadership and guidance for preparation of the Land Use Plan. The members of the Planning & Zoning Board have the following specific duties and responsibilities:

- Faithfully attend Planning & Zoning Board meetings and provide overall direction for development of the draft Land Use Plan;
- Serve as a public contact to make it easier for citizens to get information and to make comments on the plan;
- Review technical planning materials to help ensure that they accurately represent the current situation and recent trends in Calabash;
- Assist the Town's planning advisors with preparation of major plan elements, which includes identifying concerns and key plan issues, developing community vision, developing goals, and preparing draft policies and the future land use map;
- Assist with organization, management, and facilitation of public participation events;
- Help publicize public participation events in the community and recruit residents and property owners to attend; and
- Recommend and present a Land Use Plan to the Town Council.

Attachment 1 includes the names, addresses, and phone numbers of the members of the Planning & Zoning Board. The principal points of contact for Land Use Plan preparation shall be the Chairman of the Planning & Zoning Board (Ms. Cecelia Herman) and the Town of Calabash Administrator (Ms. Janet Thomas).

### **Planning & Zoning Board Meetings**

The regular monthly meetings of the Calabash Planning & Zoning Board will provide ample opportunity for Land Use Plan development. These meetings will be held on the first Monday of each month. The meetings are held at Town Hall and begin at 7:00 p.m. Special meetings may be called as necessary. In order to comply with the North Carolina General Statutes (143-318.9 to 143-318.18), a schedule of the Planning & Zoning Board's meetings is available from the Town Clerk, Ms. Donna Prince. The meeting schedule is available at Town Hall and will be distributed with the required notices. The Planning & Zoning Board Chairman will notify Town staff of any changes to the Planning & Zoning Board schedule and of any special meetings so that proper notice of these special meetings may be given.

All Planning & Zoning Board agendas will allocate time to hear comments on the Land Use Plan from the public. The Town will keep a record of all residents, property owners, and others who speak at the Planning & Zoning Board meetings (and other events) and will retain any Land Use Plan comments that it receives. The names of the speakers and the written comments will be kept in a file and will be provided to the NC Division of Coastal Management District Planner (if requested) for draft plan review.

Attachment 2 provides a monthly outline of the Land Use Plan (Phase II) schedule and gives a purpose for the meetings.

### **Participation Methods**

The Town will use at least 3 methods of public participation in the preparation of Phase II of the Land Use Plan:

- (1) Hold a formal community meeting and invite the public to express concerns about land use and development and to discuss priorities for development of the Land Use Plan;
- (2) Hold a community open house where the community can review draft information available as a part of (Phase II) Land Use Plan preparation; and
- (3) Regular meetings of the Planning & Zoning Board will be the primary vehicle for community interaction on policy and other elements of the Land Use Plan.

In addition to the required public notices, the Town will notify the area Coastal Resources Advisory Council area representative(s) and the NC Division of Coastal Management District Planner of the date, time, and place of the public meetings.

The planning team will periodically issue press releases and make efforts to notify the local media of available information on the Town's planning program.

### **Community Meeting**

The Planning & Zoning Board will hold a community meeting in September 2005, to assist in identifying Land Use Plan issues. At this meeting residents, property owners, and all interested parties will be encouraged to discuss local land use concerns. The planner in charge of the Land Use Plan project will provide background information and assist with the overall group process. Planning & Zoning Board members will work to facilitate the group discussion. The community meeting will be publicized through the local media, information flyers, and through recruiting by members of the Planning & Zoning Board and other interested citizens.

The intended audience for this public participation opportunity includes residents, resident and non- resident property owners of Calabash, business owners and operators, members of Town committees and associations, and other parties interested in land use and development activity within the Town of Calabash.

**Community Open House**

The Town of Calabash will hold a community open house near the end of the Land Use Plan (Phase II) planning process. (The open house is expected to be held in late March 2006.) The open house will be held at a time that is convenient for all interested parties to attend.

The open house will provide residents with an easy opportunity to review the information prepared as a part of the planning process. By review of the material presented, residents will be able to assess trends, review and discuss proposed policy, and have a chance to express support or recommend adjustments. The attendees will be able to interact informally with lay and professional members of the planning team.

The intended audience for the community open house includes resident and non-resident property owners, business owners and operators, members of town committees and associations, and all parties interested in land use and development activity within the Town of Calabash.

**Citizen Participation Plan Evaluation**

The Planning & Zoning Board will conduct an on-going evaluation of the citizen participation plan and will make adjustments to this plan as it becomes necessary. Any needed changes will be reviewed by the Planning & Zoning Board and recommended to the Town Council.

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This Citizen Participation Plan is adopted the \_\_\_\_\_ day of October 2005, at the Town of Calabash, North Carolina.

ATTEST:

By \_\_\_\_\_  
Donna Prince, Town Clerk

\_\_\_\_\_  
Curtis Keith Hardee, Mayor of Calabash

**Attachment 1 – Planning & Zoning Board -- Calabash**  
**September 2005**

**Ms. Cecelia Herman**, Madam Chairwoman  
403 Deer Path, SW  
Calabash, NC 28467  
910-575-8536  
[ceil1021@atmc.net](mailto:ceil1021@atmc.net)

**Ms. Theresa McMahon**  
1072 Mille Avenue, SW  
Calabash, NC 28467  
910-579-7212  
910-231-4656 (cell)  
[tmcmahon@2lhiway.net](mailto:tmcmahon@2lhiway.net)

**Mr. Kurt Hardee**  
649 Persimmon Road, SW  
Calabash, NC 28467  
910-579-3183  
[stanz649@atmc.net](mailto:stanz649@atmc.net)

**Mr. Alton Watts**  
9243 W. Calabash Drive, SW  
Calabash, NC 28467  
910579-2445

**Mr. James W. Brown**  
669 Persimmon Road  
Calabash, NC 28467  
910-579-6835

**Ms Mildred DeMarco**  
9046 Landing Drive, SW  
Calabash, NC 28467  
910-579-4417

**Ms. Janet Thomas**  
Town of Calabash  
P. O. Box 4967  
Calabash, NC 28467  
910-579-6747  
910-579-5494 (fax)

Town of Calabash email = [towncalabash@atmc.net](mailto:towncalabash@atmc.net)



**Attachment 2 — Planning & Zoning Board Meeting Schedule — Calabash Land Use Plan (2005-06)**

**Monthly Action/Purpose**

**July**

Discussion of Phase II Land Use Planning schedule. Brief outline of Phase II activity.

**August**

Draft Citizen Participation Plan (Phase II) presented to Planning & Zoning Board, discussed, and recommended to Town Council. Discussion of Town of Calabash management goals.

**September**

Discussion of Town of Calabash management goals and objectives continuing. Town Council approves Citizen Participation Plan (Phase II). Community Meeting.

**October**

Discussion of land use management topics and review/discussion of previous LUP policy.

**November**

Review and discussion of Land Use Plan policy. Future land use map preparation.

**December**

Town Board invited to Planning & Zoning Board meeting for comments and suggestions on draft Land Use Plan policy.

**January**

Review and revision of draft Land Use Plan (Planning & Zoning Board & Town Board). Citizen participation opportunities continuing.

**February**

Review and revision of draft plan (Planning & Zoning Board & Town Board). Citizen participation opportunities continuing.

**March**

Review and revision of draft plan. Community Open House.

**April**

Submit LUP for NC DCM DENR review.

**May**

Revise LUP based upon comments received. Public hearing on LUP. Town Council adoption.

**June**

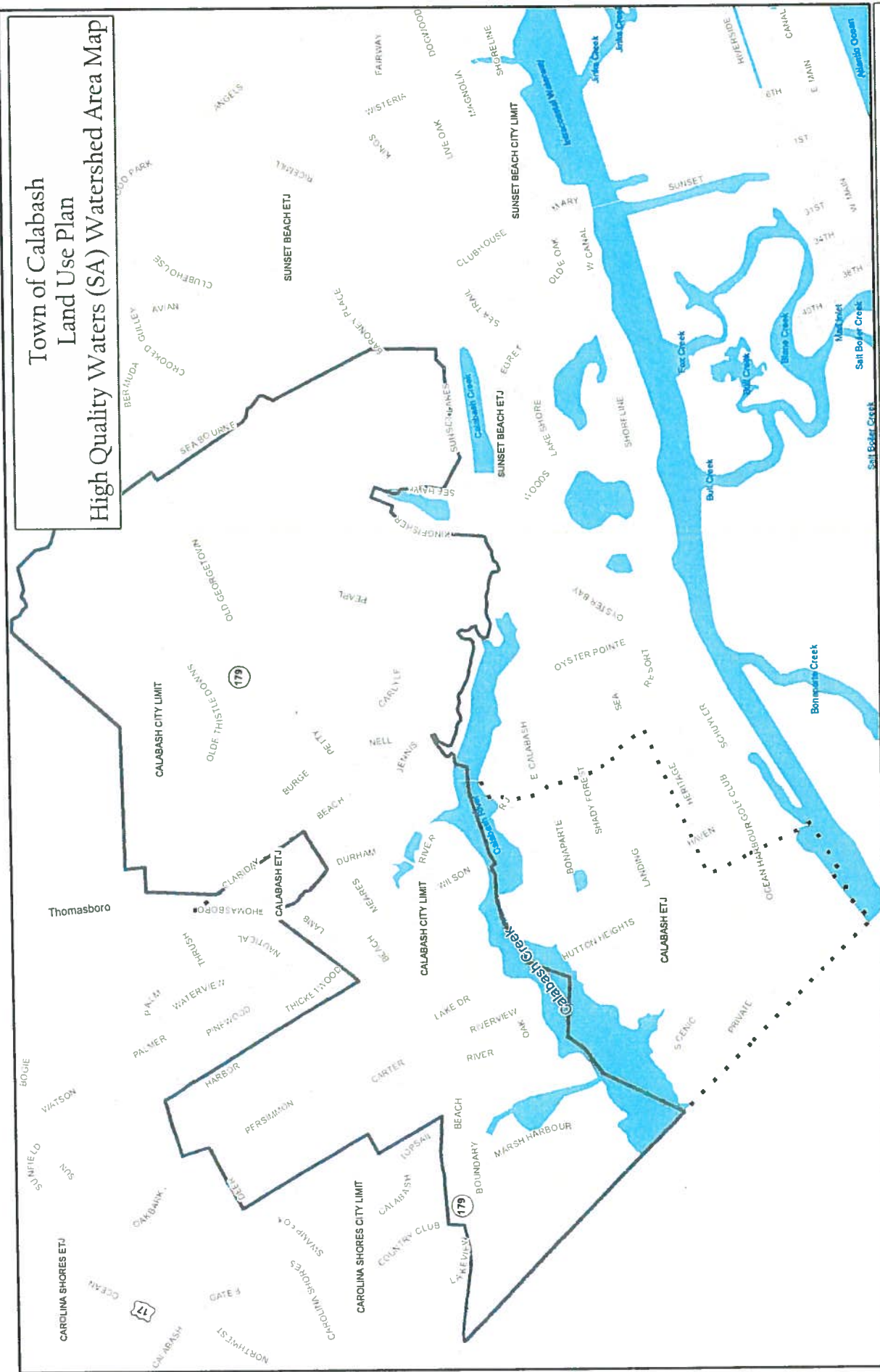
Land Use Plan submitted to DCM/DENR for CRC certification.

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## **Map Appendix**

- Map 1: High Quality Waters Watershed Area Map
- Map 2: Closed Shellfish Harvesting Areas Map
- Map 3: Floodplain Map
- Map 4: Storm Surge Inundation Map
- Map 5: Estuarine Waters and Coastal Wetlands Map
- Map 6: North Carolina CREWS Exceptional and Substantial Wetlands Area Map
- Map 7: Fish Nursery Area and Significant Natural Heritage Area Map
- Map 8: Environmental Composite Map
- Map 9: Existing Land Use Map
- Map 10: Community Facilities Map
- Map 11: Transportation Systems Map
- Map 12: Land Suitability Analysis Map
- Map 13: Future Land Use Map

# Town of Calabash Land Use Plan High Quality Waters (SA) Watershed Area Map



## Legend

- Calabash Town Limits
- Calabash ETJ
- (SA) High Quality Waters Watershed Area

The preparation of this map was financed in part through a grant provided by the North Carolina Coastal Management Program, through funds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the Office of Ocean and Coastal Resources Management, National Oceanic and Atmospheric Administration.

Map is to be used for general informational purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed.

Map prepared by  
Scott Logel  
Cape Fear Council of Governments  
1480 Harbour Drive  
Wilmington, NC 28401  
12/12/04



Map 1

**Town of Calabash  
Land Use Plan  
Closed Shellfish Harvesting Area Map**

The map illustrates the Town of Calabash's land use plan, specifically highlighting the Closed Shellfish Harvesting Area. The town's boundary is shown as a solid black line. Major roads are labeled with their respective numbers: 17, 178, and 179. The Calabash River is depicted as a blue line flowing through the town. The harvesting area is marked with a hatched pattern, primarily along the coastal regions. Various land use zones are labeled, including 'SUNSET BEACH CITY LIMIT', 'CALABASH CITY LIMIT', and 'CAROLINA SHORES CITY LIMIT'. Other notable features include 'THOMASBORO', 'CALABASH ETJ', and 'SUNSET BEACH ETJ'. The map also shows surrounding areas like 'WILSON', 'HUTTON HEIGHTS', and 'RIVERVIEW'. The 'Closed Shellfish Harvesting Area' is clearly defined by the hatched pattern, indicating where shellfish harvesting is prohibited.

The preparation of this map was financed in part through a grant provided by the North Carolina Coastal Management Program, through funds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the office of Ocean and Coastal Resources Management, National Oceanic and Atmospheric Administration.

**Legend**

	Roads		Calabash Town Limits
	Town Limits		Calabash ETJ
	ETJ		Closed Shellfish Area

Category	Mass
Head	0.15
Tail	0.15
Head + Tail	0.30
Total	1.00

 $\triangleleft$



# Town of Calabash Land Use Plan Floodplain Map



Map prepared by  
Scott Logel  
Cape Fear Council of Governments  
1480 Harbour Drive  
Wilmington, NC 28401  
12/12/04

Map is to be used for general informational  
purposes only. Spatial data used to generate  
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National Oceanic and Atmospheric Administration

Legend

- Calabash Town Limits
- Calabash ETJ

NC Floodplain Flood Zones

Flood Zone

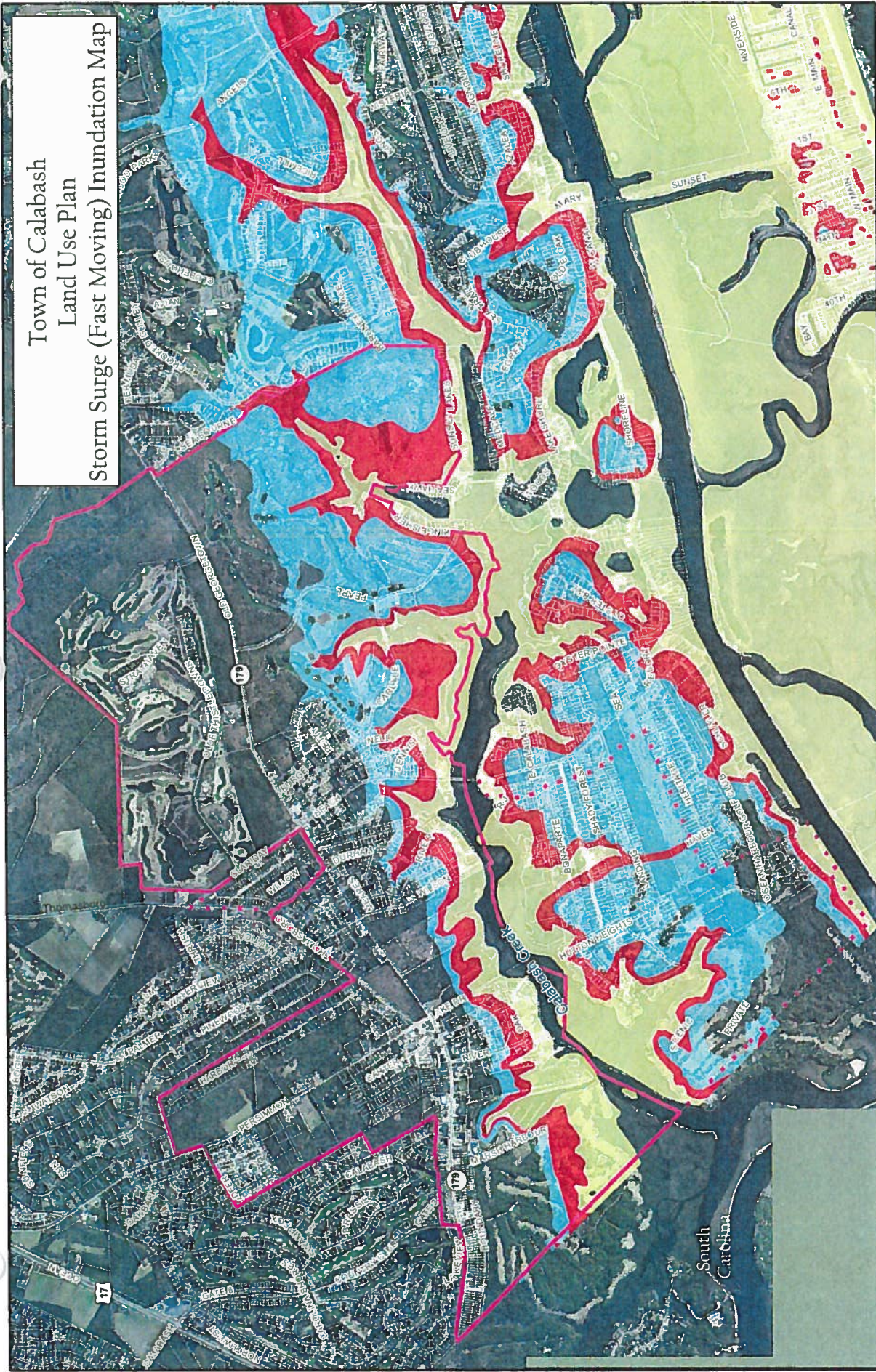
- AE
- VE



Map 3



# Town of Calabash Land Use Plan Storm Surge (Fast Moving) Inundation Map



## Legend

- Town Limits
- ETJ
- Hurricane Category 1 and 2
- Category 3
- Category 4 and 5

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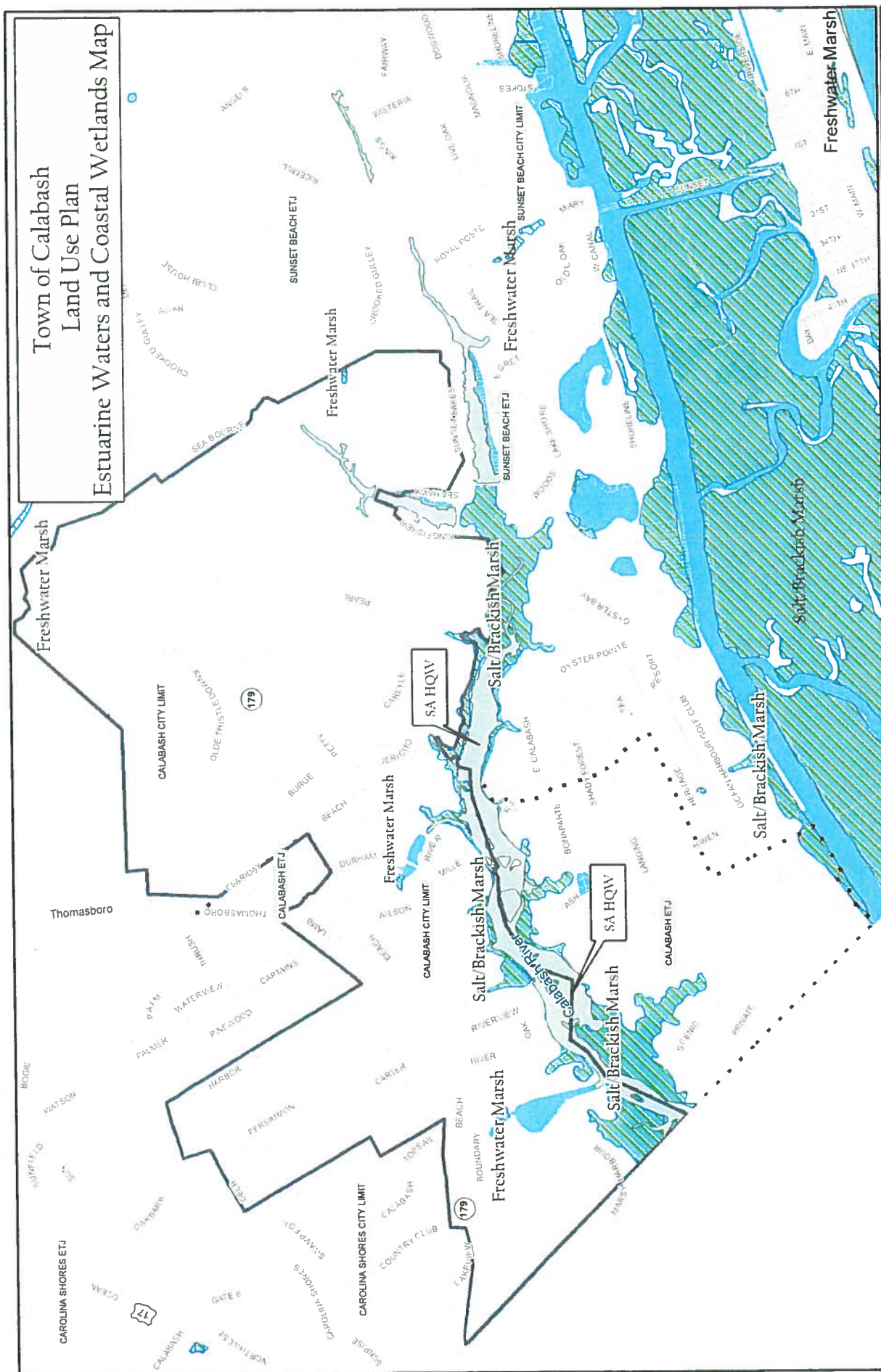
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Map prepared by  
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12/12/04





# Town of Calabash Land Use Plan Estuarine Waters and Coastal Wetlands Map

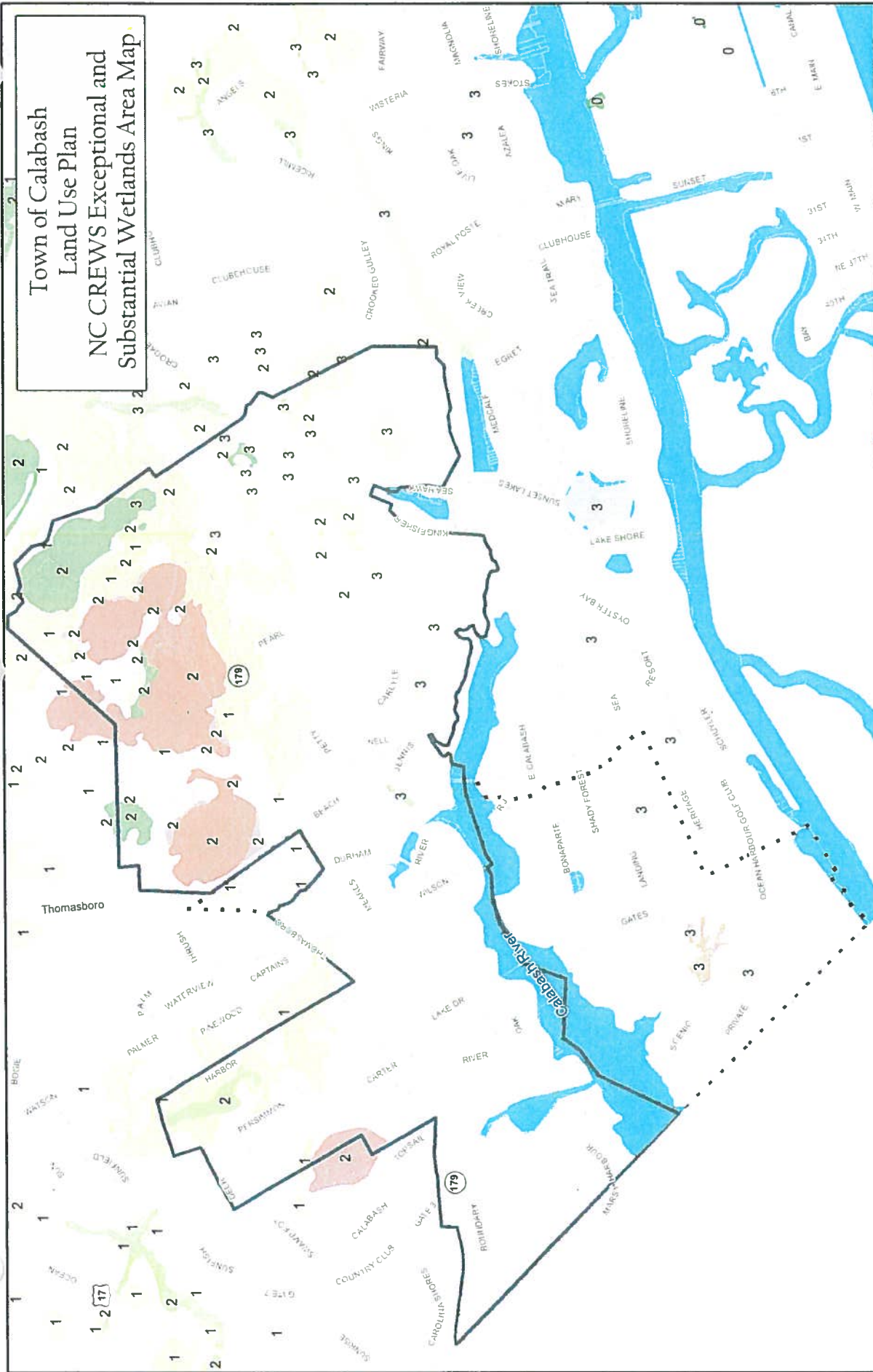


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Map prepared by  
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Wilmington, NC 28401  
12/12/04

# Town of Calabash Land Use Plan NC CREWS Exceptional and Substantial Wetlands Area Map



**Legend**

**Roads**

- Town Limits
- RT

**Wetland Type**

- Bottomland Hardwood
- Swamp Forest
- Hardwood Flat
- Pine Flat
- Managed Pineland
- Estuarine Shrub/Scrub
- Pocosin
- Headwater Swamp
- Drained Pocosin
- Drained Swamp Forest
- Drained Hardwood Flat
- Drained Pine Flat
- Human Impacted

**Potential Risk to Watershed Integrity if Lost**

- 1 - High Potential Risk to Watershed Integrity if Lost
- 0.1 or 2 - Not High Potential Risk to Watershed Integrity if Lost

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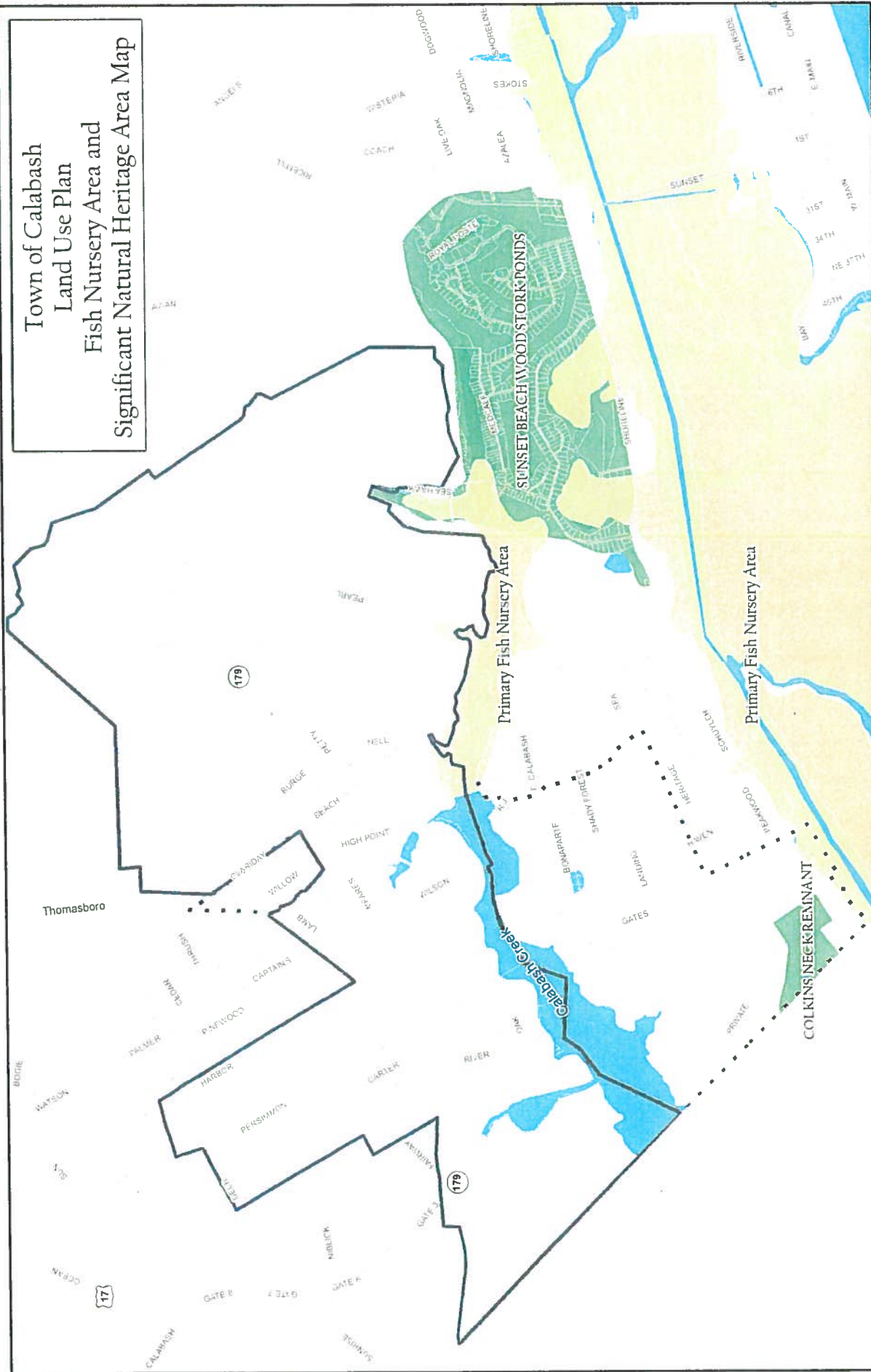
Map prepared by  
Scott Logel  
Cape Fear Council of Governments  
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Wilmington, NC 28401  
12/12/04



Map 6



# Town of Calabash Land Use Plan Fish Nursery Area and Significant Natural Heritage Area Map



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Map prepared by  
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12/12/04

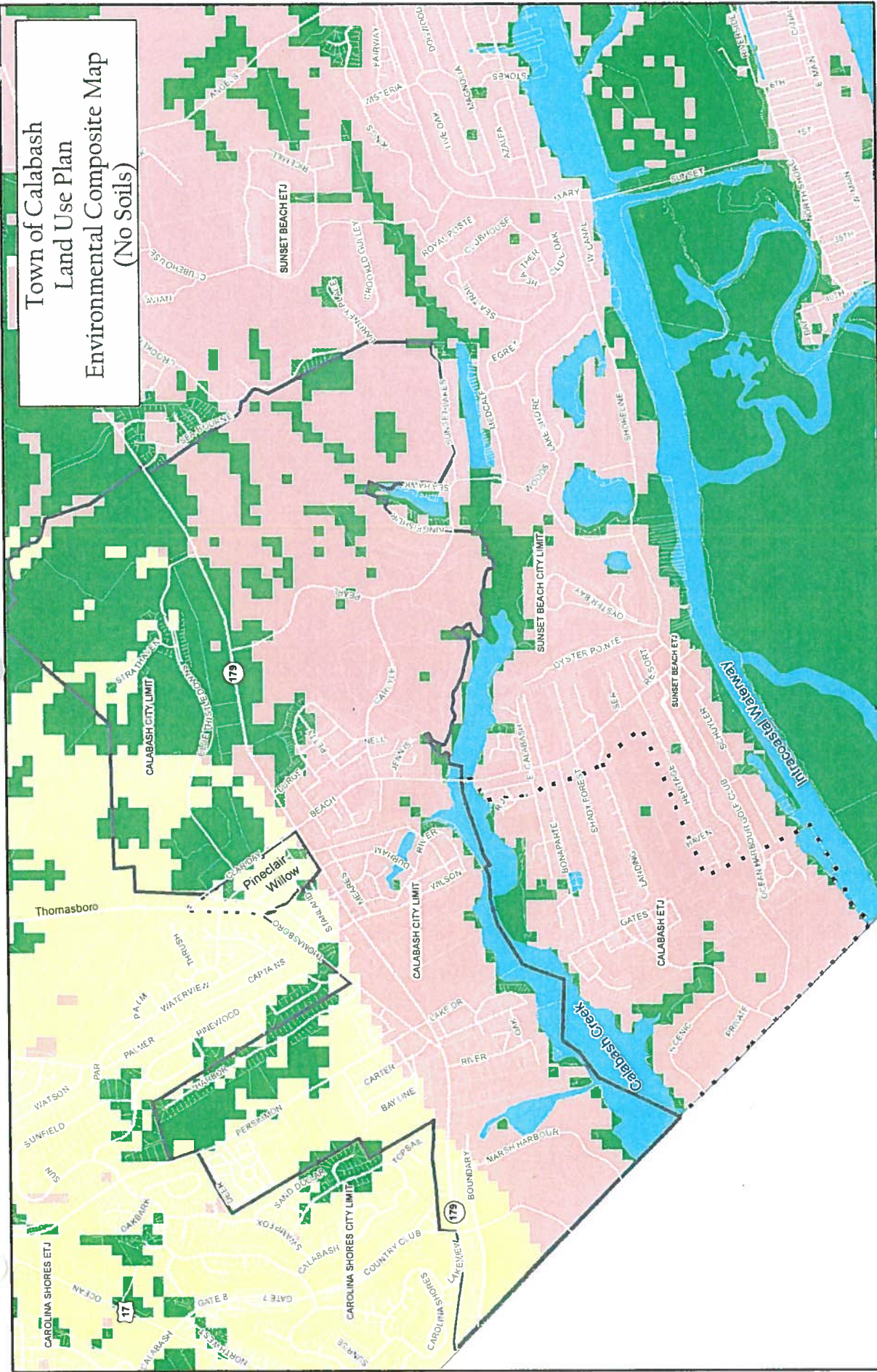
**Legend**

- Town Limits
- ETJ
- Roads
- Significant Natural Heritage Area
- Fish Nursery Areas





# Town of Calabash Land Use Plan Environmental Composite Map (No Soils)



**Legend**

- Roads
- Calabash Town Limits
- Calabash ETJ
- Parcels

**Environmental Composite Values**

- Class I
- Class II
- Class III

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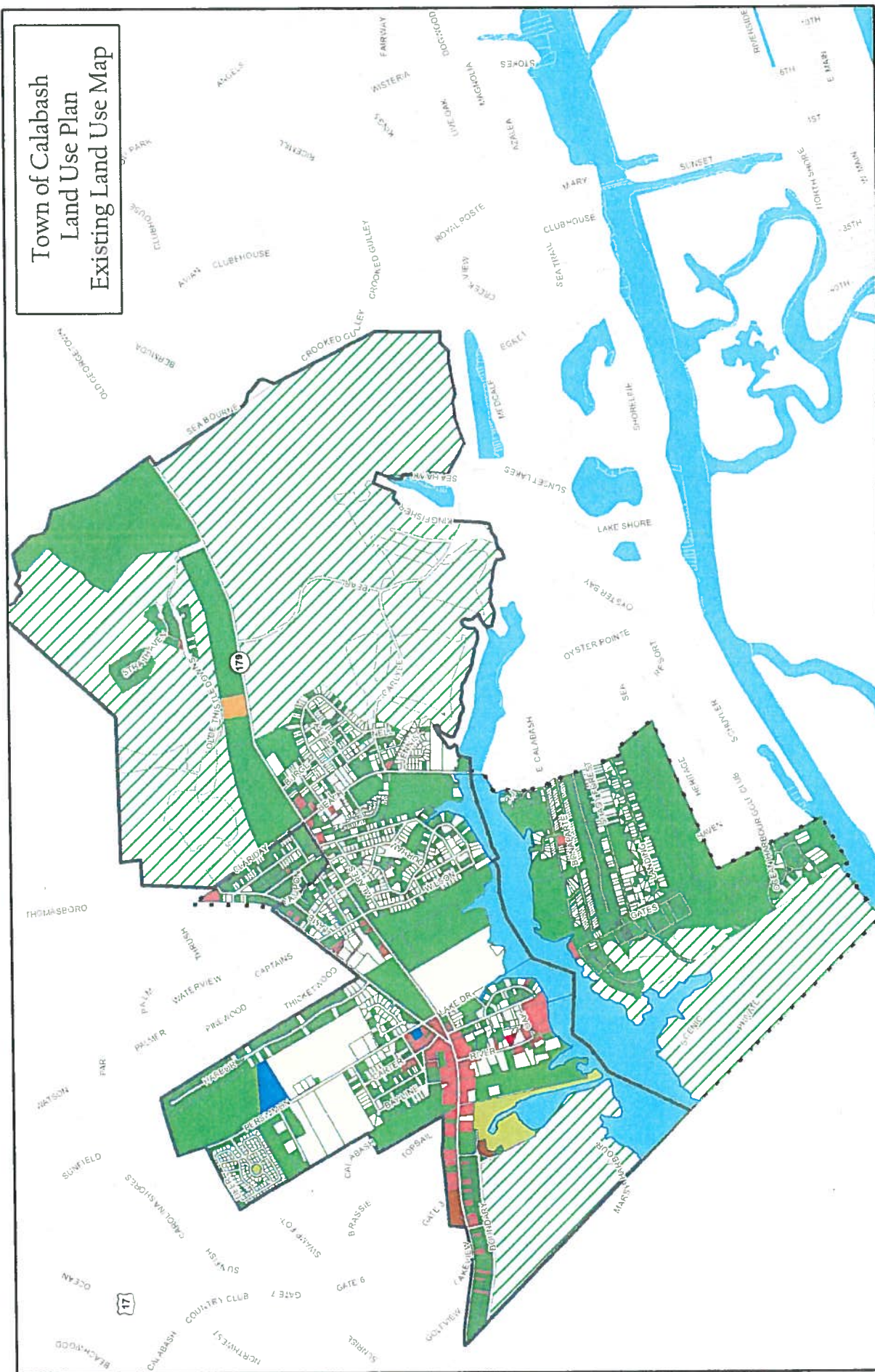
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Map prepared by  
Scott Logel  
Cape Fear Council of Governments  
1480 Harbour Drive  
Wilmington, NC 28401  
3/3/04





# Town of Calabash Land Use Plan Existing Land Use Map



**Legend**

- Calabash Town Limits
- Calabash (T)

**Use**

- Commercial
- Golf Course
- Government
- Hotel/Motel
- Institutional/Religious
- Residential
- Residential MF
- Residential Common Area
- Undeveloped
- Creek/Marsh

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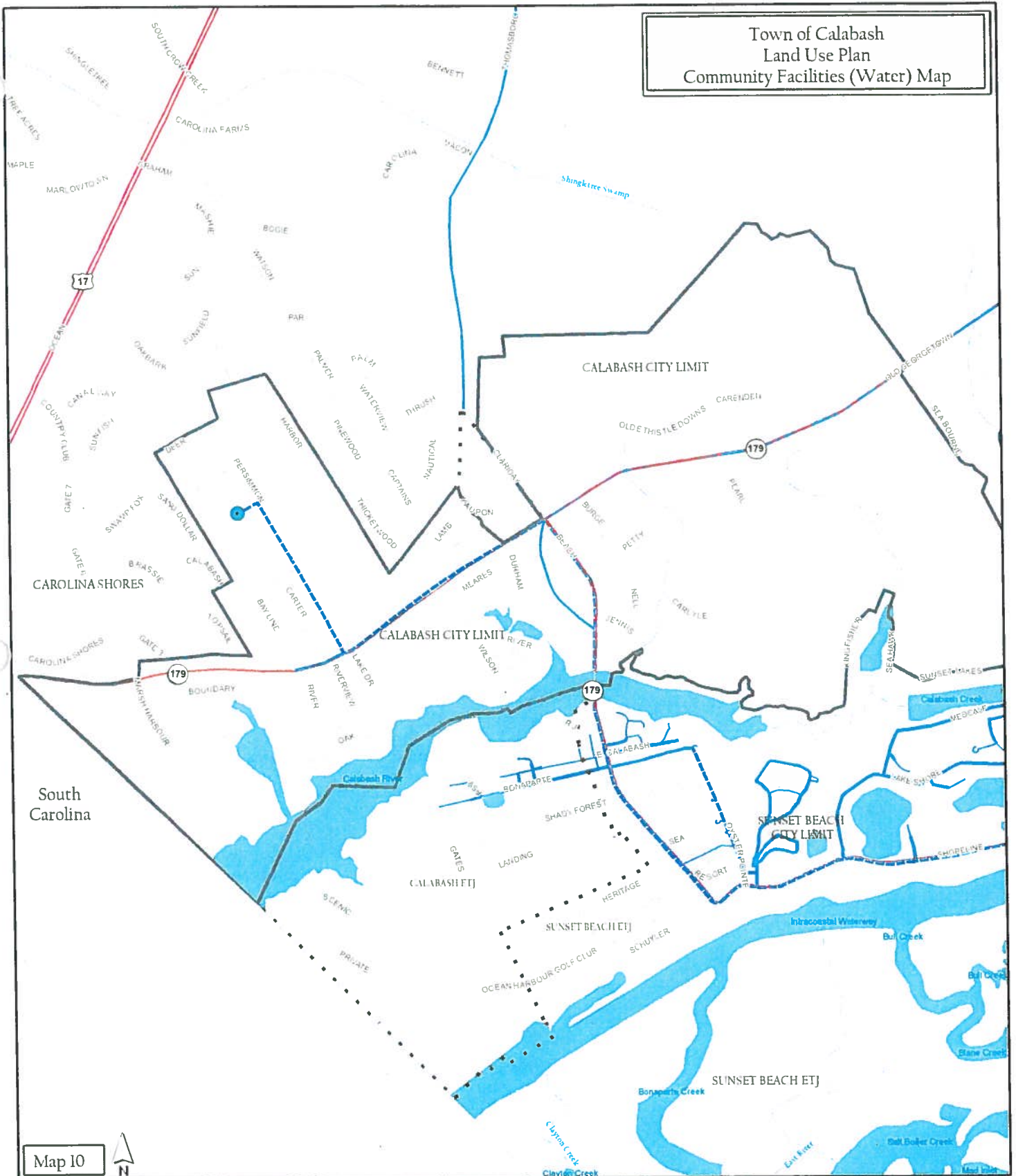
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Map prepared by  
Scott Logel  
Cape Fear Council of Governments  
1460 Harbour Drive  
Wilmington, NC 28401  
3/11/05



Map 9

# Town of Calabash Land Use Plan Community Facilities (Water) Map



Map 10



Map prepared by  
Scott Logel  
Cape Fear Council of Governments  
1460 Harbour Drive  
Wilmington, NC 28401  
5/21/05

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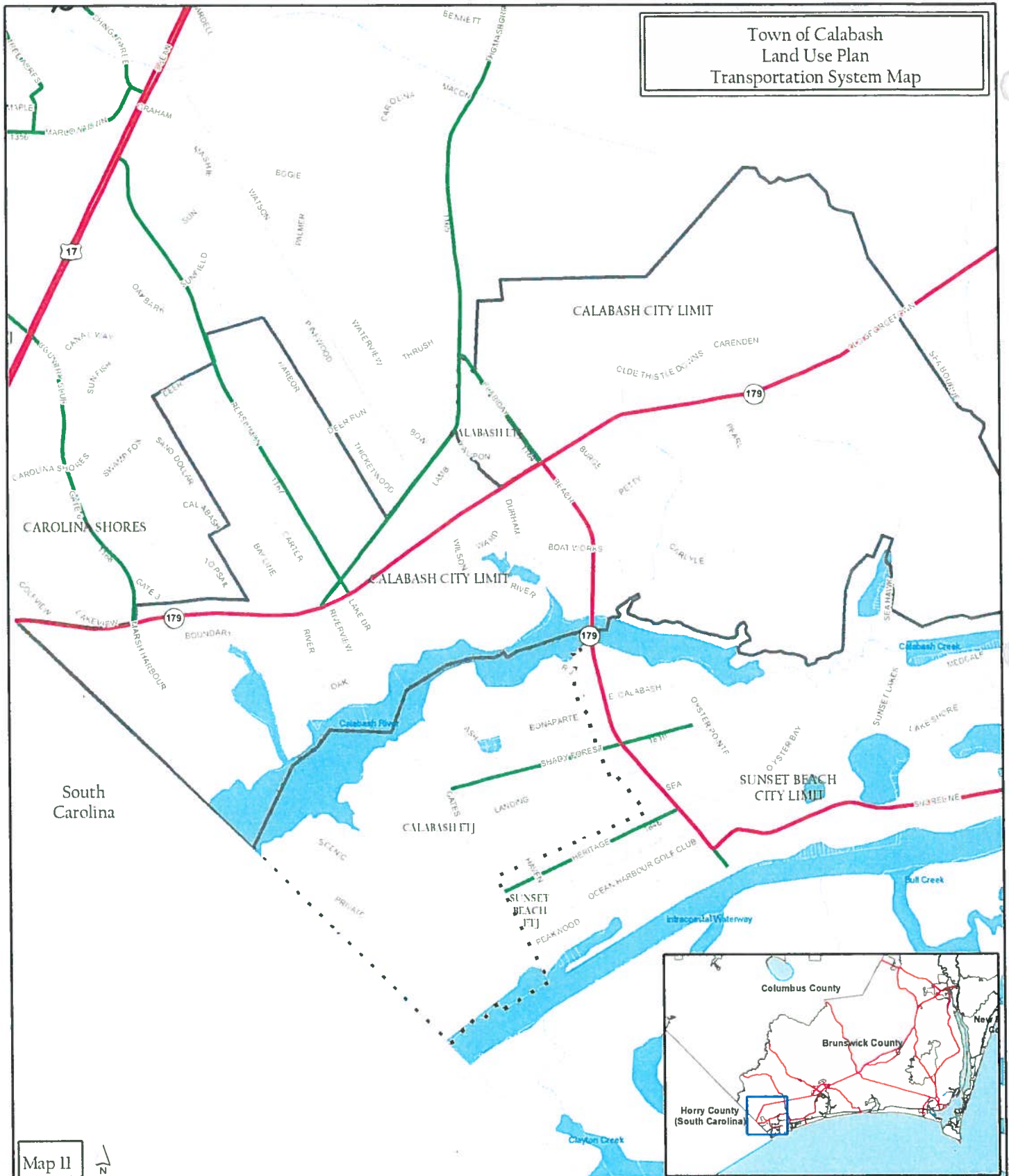
The preparation of this map was financed in part through a grant provided by the North Carolina Coastal Management Program, through funds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the office of Ocean and Coastal Resources Management, National Oceanic and Atmospheric Administration.

Water Tank	Water Lines
Primary Roads	Diameter
Roads	12"
	24"
	30"
	36"
	8"





# Town of Calabash Land Use Plan Transportation System Map



Map 11



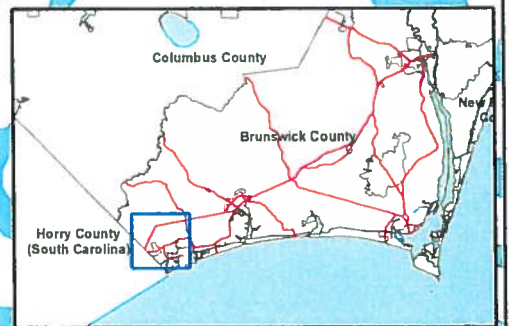
Map prepared by  
Scott Logel  
Cape Fear Council of Governments  
1480 Harbour Drive  
Wilmington, NC 28401  
5/11/05

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National Oceanic and Atmospheric Administration.

## Legend

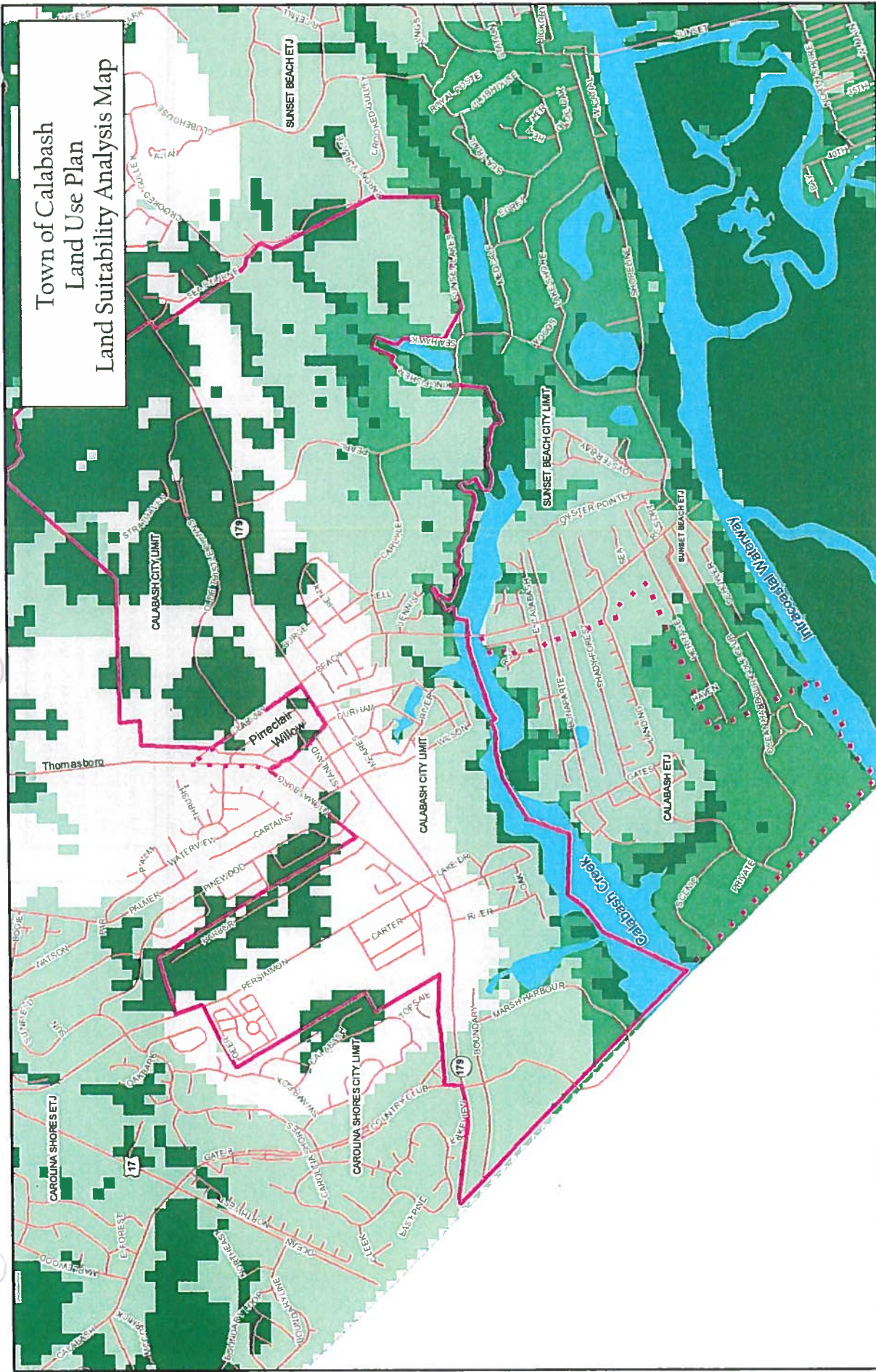
- Primary Roads
- Secondary Roads
- Roads
- Parcels
- Town Limits
- ETJ



0 0.125 0.25 0.5 0.75 1 Miles



# Town of Calabash Land Use Plan Land Suitability Analysis Map



**Legend**

- Roads
- Calabash Town Limits
- Calabash ETJ
- Parcels

**Development Land Suitability**

Value	Suitability
Dark Green	Least Suitable
Medium Green	Low Suitability
Light Green	Medium Suitability
White	High Suitability

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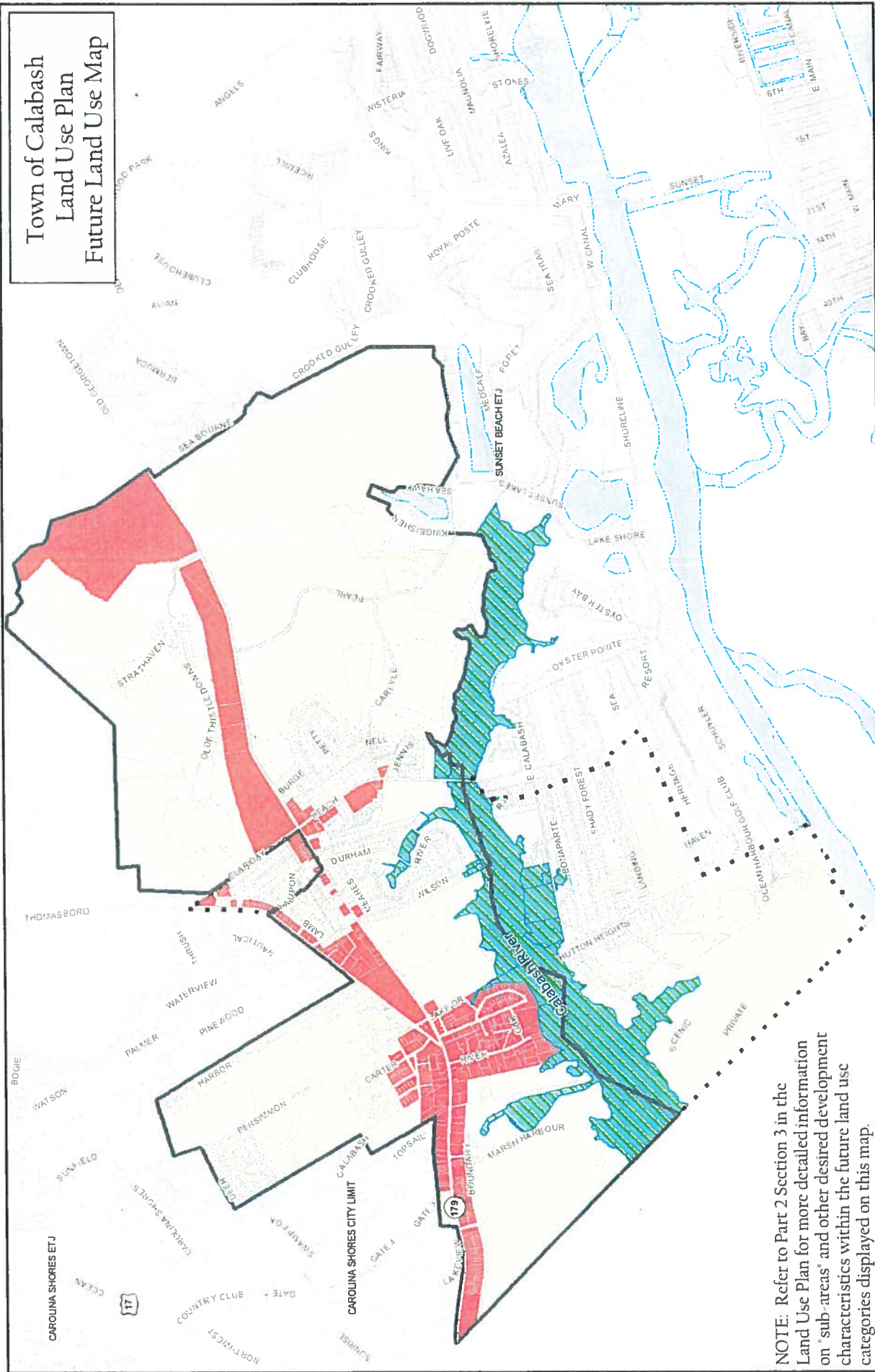
Map prepared by:  
Scott Logel  
Cape Fear Council of Governments  
1480 Harbour Drive  
Wilmington, NC 28401  
4/6/05



Map 12



# Town of Calabash Land Use Plan Future Land Use Map



## Legend

Future Land Use Class

- Residential
- Business District and Town Center
- Conservation

- Town Limits
- ETJ
- Roads
- Parcels

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Map prepared by  
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Wilmington, NC 28401  
6/20/07



Map 13

NOTE: Refer to Part 2 Section 3 in the Land Use Plan for more detailed information on "sub-areas" and other desired development characteristics within the future land use categories displayed on this map.



